



# TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

## MEETING MATERIALS

May 7, 2009

CALTRANS

BAY AREA TOLL AUTHORITY

CALIFORNIA TRANSPORTATION COMMISSION





## *Letter of Transmittal*

**TO:** Toll Bridge Program Oversight Committee  
(TBPOC)

**DATE:** April 29, 2009

**FR:** Program Management Team (PMT)

**RE:** TBPOC Meeting Materials Packet – May 7, 2009

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Herewith is the TBPOC Meeting Materials Packet for the May 7<sup>th</sup> meeting. The packet includes memoranda and reports that will be presented at the meeting. A Table of Contents is provided following the Agenda to help locate specific topics.

**TBPOC MEETING**  
**May 7, 2009, 1:00 pm – 4:00 pm**  
**Conference Room 1906, Mission Bay Office, Pier 7, Oakland**

<b>Topic</b>	<b>Presenter</b>	<b>Time</b>	<b>Desired Outcome</b>
<b>1. CHAIR'S REPORT</b>	W. Kempton, CT	5 min	Information
<b>2. CONSENT CALENDAR</b> a. April 2, 2009 Meeting Minutes* b. April 9, 2009 Conference Call Minutes* c. Contract Change Orders (CCO): 1) West Approach CCO 191 (Contractor-Controlled Insurance Program)*	A. Fremier, BATA A. Fremier, BATA  D. Noel, CTC	1 min 1 min  5 min	Approval Approval  Approval
<b>3. PROGRAM ISSUES</b> a. TBSRP Capital Outlay Support (COS) Update*  b. Cost Forecast Change* c. Draft First Quarter 2009 Project Progress and Financial Update**	A. Banani, CT/ P. Lee, BATA  P. Lee, BATA A. Fremier, BATA	30 min  15 min 15 min	Information  Approval Approval
<b>4. SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES</b> a. Self-Anchored Suspension (SAS) Superstructure 1) TBPOC / ABF Mitigation and Acceleration Update  b. Yerba Buena Island (YBI) Detour 1) East Tie-In (ETI) Update 2) Contract Change Order 134 (Electrical Work)*  c. Yerba Buena Island Transition Structures (YBITS) No. 1 1) Bid Opening Addendum*  d. Oakland Touchdown (OTD) No. 1 Update	        PMT        T. Anziano, CT D. Noel, CTC      T. Anziano, CT   T. Anziano, CT	        45 min   15 min 5 min   15 min  5 min	        Information   Information Approval   Approval  Information
<b>5. OTHER BUSINESS</b> a. Dumbarton / Antioch Bridge Update*	A. Fremier, BATA	15 min	Information
<b>Next TBPOC Meeting: June 4, 2009, 1:00 PM – 4:00 PM</b> <b>Director's Conference Room, 1120 N Street, Sacramento</b>			

\*Attachments

\*\*Stand-alone document included in the binder

## **TBPOC MEETING May 7, 2009**

<b>INDEX TAB</b>	<b>AGENDA ITEM</b>	<b>DESCRIPTION</b>
<b>1</b>	<b>1</b>	<b>CHAIR'S REPORT</b>
<b>2</b>	<b>2</b>	<b>CONSENT CALENDAR</b> <ul style="list-style-type: none"> <li>a. April 2, 2009 Meeting Minutes*</li> <li>b. April 9, 2009 Conference Call Minutes*</li> <li>c. Contract Change Orders (CCO): <ul style="list-style-type: none"> <li>1) West Approach CCO 191 (Contractor-Controlled Insurance Program)*</li> </ul> </li> </ul>
<b>3</b>	<b>3</b>	<b>PROGRAM ISSUES</b> <ul style="list-style-type: none"> <li>a. TBSRP Capital Outlay Support (COS) Update*</li> <li>b. Cost Forecast Change*</li> <li>c. Draft First Quarter 2009 Project Progress and Financial Update**</li> </ul>
<b>4</b>	<b>4</b>	<b>SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES</b> <ul style="list-style-type: none"> <li>a. Self-Anchored Suspension (SAS) Superstructure <ul style="list-style-type: none"> <li>1) TBPOC / ABF Mitigation and Acceleration Update</li> </ul> </li> <li>b. Yerba Buena Island (YBI) Detour <ul style="list-style-type: none"> <li>1) East Tie-In (ETI) Update</li> <li>2) Contract Change Order 134 (Electrical Work)*</li> </ul> </li> <li>c. Yerba Buena Island Transition Structures (YBITS) No. 1 <ul style="list-style-type: none"> <li>1) Bid Opening Addendum*</li> </ul> </li> <li>d. Oakland Touchdown (OTD) No. 1 Update</li> </ul>
<b>5</b>	<b>5</b>	<b>OTHER BUSINESS</b> <ul style="list-style-type: none"> <li>a. Dumbarton / Antioch Bridge Update*</li> </ul>

\*Attachments

\*\*Stand-alone document included in the binder



## **ITEM 1: CHAIR'S REPORT**

No Attachments

## *Memorandum*

**TO:** Toll Bridge Program Oversight Committee (TBPOC)      **DATE:** April 29, 2009

**FR:** Andrew Fremier, Deputy Executive Director, BATA

**RE:** Agenda No. - 2a  
Consent Calendar  
Item- April 2, 2009 Meeting Minutes

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**Recommendation:**  
**APPROVAL**

**Cost:**  
N/A

**Schedule Impacts:**  
N/A

**Discussion:**  
The Program Management Team has reviewed and requests TBPOC approval of the April 2, 2009 Meeting Minutes.

**Attachment(s):**  
April 2, 2009 Meeting Minutes



# TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

## MEETING MINUTES

April 2, 2009, 10:00 AM – 1:00 PM

Conference Room 1906, Mission Bay Office, Pier 7, Oakland

**Attendees:** TBPOC Members: Will Kempton Steve Heminger, and Andre Boutros  
PMT Members: Tony Anziano, Andrew Fremier, and Stephen Maller  
Participants: Bill Casey, Michele DiFrancia, Mike Forner, Beatriz Lacson, Rick Land, Peter Lee, Brian Maroney, Bart Ney, Dina Noel, Gary Pursell (part-time), Bijan Sartipi, Jon Tapping, Ken Terpstra, Chris Traina, Margena Wade, and Jason Weinstein  
Part-Time, SF Team: Eric Cordoba (SFCTA), Donald MacDonald (MacDonald Architects), Jose Luis Moscovich (SFCTA), Steve Morton (AECOM), Rodney Pimentel (AECOM), and Jack Sylvan (SF Mayor's Office)  
Part-Time, TYLin /M&N: Dennis Jang, Marwan Nader, Bob Nichol, and Alvaro Piedrahita

Convened: 10:14 AM

Items		Action
<b>1. CHAIR'S REPORT</b>		
<ul style="list-style-type: none"><li>• Will Kempton, the Chair, opened the meeting and turned it over to Andre Boutros, who announced that Bimla Rhinehart, formerly Caltrans Chief, Division of Right of Way and Land Surveys, has been named CTC Executive Director. She will attend the May meeting as a new member of the TBPOC.</li><li>• The Chair reported that there was a successful bond sale last week, with \$6.5 billion worth of bonds sold, surpassing the expected amount of \$4 billion.</li><li>• The Chair noted that the Federal stimulus was well-received and is being put to use in the State, of which \$2.2B will be allocated for highway projects.</li><li>• Vice Chair Steve Heminger complimented the Chair for his leadership in managing the</li></ul>		

(continued)

Items	Action
stimulus/bond sale/financing effort.	
<b>2. CONSENT CALENDAR</b> a. March 5, 2009 TBPOC Meeting Minutes	<ul style="list-style-type: none"><li>• The TBPOC <b>APPROVED</b> the March 5, 2009 TBPOC Meeting Minutes.</li></ul>
<b>3. PROGRESS REPORTS</b> a. Draft March 2009 Monthly Progress Report <ul style="list-style-type: none"><li>• Andy Fremier presented, for information, the draft March 2009 Monthly Progress Report. The PMT will approve the final version through delegated TBPOC authority as soon as updated expenditure data and latest comments are incorporated.</li><li>• Draft version 9.0 was distributed at the meeting.<ul style="list-style-type: none"><li>○ The report has a new format, and has been revamped to make it more understandable to the target audience.</li><li>○ The goal is to include more issues and roll into quarterly financial updates.</li><li>○ The monthly report will be supplemented on a quarterly basis with financial information to fulfill the AB144 reporting requirements. This will eliminate the need for separate quarterly and monthly reports.</li><li>○ It was noted that the Labor Day weekend closure has been included in the March report, which will be publicly released at the BATA Commission meeting on April 8.</li></ul></li></ul>	<ul style="list-style-type: none"><li>• The TBPOC supported the new format of the monthly progress report.</li></ul>
<b>4. SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES</b> a. Yerba Buena Island (YBI) Ramps <ul style="list-style-type: none"><li>1) City of San Francisco Briefing</li></ul>	



**(continued)**

Items	Action
<ul style="list-style-type: none"><li>• Eric Cordoba, San Francisco County Transportation Authority (SFCTA) YBI Ramps Project Manager, led a presentation on the YBI Ramps Project, as it relates to the YBITS No. 1 contract. The briefing covered the following items: background, geometry concept, goal, schedule, YBITS 1 addendum, project funding, YBI bike/pedestrian circulation, and architectural design.</li><li>• SF Team comments included:<ul style="list-style-type: none"><li>○ Alternative 2B currently appears to be the most viable solution.</li><li>○ Construction is estimated at \$70M.</li><li>➤ Funding sources include: \$18M - Prop. 1B, \$52M – Federal and State.</li><li>○ SFCTA Executive Director Jose Luis Moscovich indicated that their work with the Department has been productive since last meeting with the TBPOC. He looks forward to working in partnership with the Department and BATA to secure the funding required for completing the project.</li></ul></li><li>• The Chair noted that the TBPOC agencies would need to work with the City on an individual basis regarding funding for the YBI ramps project, as the TBPOC is not involved in this aspect of the project.</li><li>• Brian Maroney suggested that geotechnical foundation investigation work be completed prior to the bidding .</li></ul> <p>b. Yerba Buena Island Detour (YBID)</p>	<ul style="list-style-type: none"><li>• There will be no additional State contribution.</li></ul>

(continued)

Items	Action
<p>1) Partial Demolition of Structure (Pier YB4 to Bent 48)</p> <ul style="list-style-type: none"><li>• Mike Forner presented the options to demolish the SFOBB existing structure from Bent 48 through Pier YB4.<ul style="list-style-type: none"><li>○ The introduction of the ETI roll-out/roll-in and the YBITS advanced work changed the nature of the partial demolition which was included in the original YBI Detour contract.</li><li>○ The rolled-out YB4 structure portion was agreed to be addressed as a part of the ETI work.</li></ul></li><li>• Reviewed were spreadsheets showing 5 schedule options relating to the YBI Detour contract completion and the YBITS No. 1 contract construction in context with SAS milestones, and a comparison of risk assessment associated with keeping the demolition and remaining advanced work with the current YBID contractor, or removing this work from their contract and using other procurement methods to complete this work.<ul style="list-style-type: none"><li>○ Taking into consideration the schedule risk to delaying SAS, the option to keep the demolition with the current YBID contractor (Option No. 2) becomes the favored choice.</li></ul></li></ul> <p>2) Contract Change Order (CCO) 65, S1 (Partial Demolition of Structures)</p> <ul style="list-style-type: none"><li>• Dina Noel presented, for TBPOC approval, CCO 65 – Supplement 1, in the amount of \$9, 227,660,</li></ul>	<ul style="list-style-type: none"><li>• Although presented as an informational item, the TBPOC <b>APPROVED</b> YBID Demolition Option No. 2</li></ul>

(continued)

Items	Action
<p>to compensate the contractor for labor, equipment, and material costs to remove the existing structure from Bent 48 to Bent YB4, including costs involved in working around, protecting, and repairing YBITS advanced newly constructed columns, structures and facilities.</p> <ul style="list-style-type: none"> <li>• It was suggested to confer with the contractor and wrap up all open issues, including a completion date, the Mammoet concern, and others.</li> </ul> <p>3) East Tie-In 2009 Outreach Action Plan</p> <ul style="list-style-type: none"> <li>• Public Information Officer (PIO) Bart Ney, on behalf of the Communications Partnership Team (CPT), presented for TBPOC approval, the East Tie-In 2009 Outreach Action Plan which proposes to educate the stakeholders and the public about the 2009 Labor Day weekend closure of the Bay Bridge. The presentation covered closure overview, access and transportation alternatives, outreach and public communication, elected officials/media/public outreach, Caltrans internal coordination and a proposed presentation calendar. <ul style="list-style-type: none"> <li>○ The outreach effort will build upon the lessons learned from the 2006 and 2007 bridge closures for the West Approach and YBI viaduct replacement, respectively.</li> <li>○ It will be more green and lean – less paper, fewer community presentations, more electronic</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• The TBPOC <b>APPROVED</b> CCO 65 -S1 (\$9,227,660), with direction to seek resolution of contract time by June 1, 2009.</li> </ul> <ul style="list-style-type: none"> <li>• The TBPOC <b>APPROVED</b> the East Tie-In Outreach Action Plan with the following changes: <ul style="list-style-type: none"> <li>○ Acknowledge the West Approach seismic safety milestone (April 10), and</li> <li>○ Incorporate the message about the impending lower speed limit on the bridge.</li> </ul> </li> </ul>

***(continued)***

<b>Items</b>	<b>Action</b>
<p style="padding-left: 40px;">dissemination of information.</p> <ul style="list-style-type: none"> <li>○ It is anticipated that this will be one of the most attended outreaches, and would garner both statewide and nationwide media attention.</li> <li>• The Chair noted that the Professional Engineers in California Government (PECG) has given the project great publicity in the past and suggested contacting them.</li> </ul> <p>c. Self-Anchored Suspension (SAS) Superstructure</p> <p>1a) TY Lin/ Moffatt &amp; Nichol Process Enhancement Proposal</p> <ul style="list-style-type: none"> <li>• Marwan Nader of the design joint venture (DJV) of TY Lin/ Moffatt &amp; Nichol gave a presentation on Schedule Acceleration Strategies for the SFOBB, which included (1) streamline communication, (2) fit-for-purpose evaluation, (3) expedited review of shop drawings, (4) additional design support to fabrication, (5) schedule review, (6) design variance evaluation, (7) supplement shop drawings, (8) erection engineering support, and (9) cable engineering support.</li> </ul> <p>1b) TBPOC /ABF Mitigation and Acceleration Update</p> <ul style="list-style-type: none"> <li>• The SAS Fabrication Status as of March 13, 2009 was handed out at the meeting.</li> <li>• Discussion/comments included:               <ul style="list-style-type: none"> <li>○ The TBPOC met with ABF yesterday. A TBPOC/ABF conference call is scheduled for April 10 to further discuss outstanding issues.</li> <li>○ It was suggested that we take</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• The PIO to contact PECG directly as part of the media outreach.</li> </ul>                     <ul style="list-style-type: none"> <li>• Schedule a TBPOC/PMT conference call before April 10 to prepare the TBPOC for the teleconference with ABF.</li> </ul>



(continued)

Items	Action
<p>a look at where we are to date and resolve through CCO - unilaterally, if necessary - to show good faith in taking responsibility for some issues. Another option would be via contract remedies or through the Dispute Review Board (DRB).</p> <ul style="list-style-type: none"> <li>○ Vice Chair Steve Heminger moved to authorize the PMT to develop a CCO package in an amount not to exceed \$46M, to include CCO 108 (see Item 4c2 below), Candraft cost, and other fabrication issues.</li> </ul> <p>2) Contract Change Order 108 (Fabrication Schedule Recovery)</p> <ul style="list-style-type: none"> <li>• CCO 108 in the amount of \$13,000,000, the State's share of the incentive package worked out by ABF with ZPMC to meet the revised shipment dates, will become a part of the CCO package that the PMT has been charged with developing (see item 4c1b above).</li> </ul>	<ul style="list-style-type: none"> <li>○ A motion was <b>APPROVED</b> (2 to 1) to authorize the PMT to develop a CCO package in an amount not to exceed \$46M, to include CCO 108, Candraft cost, and other fabrication issues.</li> </ul>
<p><b>8 OTHER BUSINESS</b></p> <p>a. SFOBB West Span Pathway PSR</p> <ul style="list-style-type: none"> <li>• Andy Fremier gave an update on the feasible study to add a pedestrian/bicycle/maintenance pathway to the west span of the San Francisco-Oakland Bay Bridge.</li> <li>○ BATA will be issuing a task order to develop a project study report (PSR) that will be based on the feasibility study completed in 2001 (updated based on current needs and developments).</li> <li>➤ RM3 funding would be the</li> </ul>	

**(continued)**

Items	Action
<ul style="list-style-type: none"><li>only way the project can be financed.</li><li>○ Funding for the PSR, estimated at a cost of \$\$1.3 million, will come from the BATA Toll Bridge Rehabilitation Program funds.</li></ul>	

Adjourned: 1:28 PM

### **MEETING MINUTES**

April 2, 2009, 10:00 AM – 1:00 PM

Conference Room 1906, Mission Bay Office, Pier 7, Oakland

#### **APPROVED BY:**

\_\_\_\_\_  
**WILL KEMPTON**, Director  
California Department of Transportation

\_\_\_\_\_  
Date

\_\_\_\_\_  
**ANDRE BOUTROS**, Interim Director  
California Transportation Commission

\_\_\_\_\_  
Date

\_\_\_\_\_  
**STEVE HEMINGER**, Executive Director  
Bay Area Toll Authority

\_\_\_\_\_  
Date

## *Memorandum*

**TO:** Toll Bridge Program Oversight Committee (TBPOC)      **DATE:** April 29, 2009

**FR:** Andrew Fremier, Deputy Executive Director, BATA

**RE:** Agenda No. - 2b  
Consent Calendar  
Item- April 9, 2009 Conference Call Minutes

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**Recommendation:**  
**APPROVAL**

**Cost:**  
N/A

**Schedule Impacts:**  
N/A

**Discussion:**  
The Program Management Team has reviewed and requests TBPOC approval of the April 9, 2009 Conference Call Minutes.

**Attachment(s):**  
April 9, 2009 Conference Call Minutes



# TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

## CONFERENCE CALL MINUTES

April 9, 2009, 11:00 AM – 11:30 AM

**Attendees:** TBPOC Members: Will Kempton, Steve Heminger and Andre Boutros  
PMT Members: Tony Anziano, Andrew Fremier, and Stephen Maller  
Participants: Michele DiFrancia, Beatriz Lacson, Rick Land, Peter Lee, Dina Noel, Bimla Rhinehart, Jon Tapping, and Ken Terpstra

Convened: 11:10 AM

Items	Action
<p><b>1. Self-Anchored Suspension (SAS) Superstructure</b></p> <p>a) TBPOC/ABF Mitigation and Acceleration</p> <ul style="list-style-type: none"><li>• The Chair acknowledged receipt of the ABF proposal on SAS mitigation and acceleration.</li><li>• Tony Anziano provided the following comments on the ABF proposal, which includes three components:<ul style="list-style-type: none"><li>○ Schedule: Three options presented -<ul style="list-style-type: none"><li>➢ “As Is”, with WB opening of Dec 2013;</li><li>➢ Mitigated, with opening of Dec 2012;</li><li>➢ Opportunity Schedule, with opening of Sep 2012.</li></ul></li><li>○ Mitigation costs: Total proposal of \$100M, which includes \$66M for damages and direct costs; \$30M additionally, for ZPMC-related costs (additional shop space, shipments, etc.) that warrant further discussion (does not include \$13M ZPMC incentive package); and</li><li>○ Process enhancements (many of which have been implemented), including a proposed organization chart.</li></ul></li></ul>	



**(continued)**

Items	Action
<ul style="list-style-type: none"><li>• Discussion/comments included:<ul style="list-style-type: none"><li>○ The ABF proposal is consistent with the draft CCO 108 (\$45M), which will serve as a response to the ABF proposal.<ul style="list-style-type: none"><li>➤ The CCO would be a down-payment on an overarching resolution.</li></ul></li><li>○ A timetable needs to be developed for resolving other items, including schedule delay.</li><li>○ Jon Tapping confirmed that these costs have been carried in the Risk Register and are within the range of the amounts being claimed.</li><li>○ A TBPOC letter response should be drafted by the PMT, including a proposal/plan for global resolution.</li><li>○ Due to schedule conflicts, it was suggested that the TBPOC/ABF conference call be moved to Tuesday afternoon, and that the PMT participate in the teleconference.</li></ul></li></ul>	<ul style="list-style-type: none"><li>• The TBPOC approved CCO 108.</li> <li>• The PMT to draft a package for the Chair's signature and transmittal to ABF.</li><li>• The Chair to call Bob Luffy to reschedule the TBPOC/ABF conference call to Tuesday, April 14.</li></ul>

Adjourned: 11:36 AM

***(continued)***

**CONFERENCE CALL MINUTES**

April 9, 2009, 11:00 AM – 11:30 AM

**APPROVED BY:**

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**WILL KEMPTON**, Director  
California Department of Transportation

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Date

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**ANDRE BOUTROS**, Interim Director  
California Transportation Commission

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Date

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**STEVE HEMINGER**, Executive Director  
Bay Area Toll Authority

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Date

## *Memorandum*

**TO:** Toll Bridge Program Oversight Committee  
(TBPOC)

**DATE:** April 29, 2009

**FR:** Dina Noel, Assistant Deputy Director, CTC

**RE:** Agenda No. - 2c1

Item- Consent Calendar

West Approach Contract Change Order 191, Supplement 0

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**Recommendation:**

**APPROVAL**

**Cost:**

CCO 191, SUPPLEMENT 0: \$3,962,180.00

**Schedule Impacts:**

N/A

**Discussion:**

**Contract Change Order 191, Supplement 0** (\$3,962,180) provides for compensating the contractor for Contractor-Controlled Insurance Program (CCIP) costs incurred due to the approximately \$102,500,000 in Department changes to the contract. The major components of costs associated with CCIP include general liability, workman's compensation and builder's risk insurance. The change order shall resolve all outstanding costs associated with the approximately 330 change orders to be issued under the contract. Compensation shall be paid as an Adjustment of Compensation at an Agreed Lump Sum.

This CCO for the Contract-Controlled Insurance Program is the last known large CCO on the West Approach. The proposed final estimate will be run on May 8, and the contractor has 30 days to return the Proposed Final Estimate with any exceptions they may have. So by June 8, the Department will know if there are any outstanding issues on the West Approach Contract.

Attached are more detailed information, including the actual draft CCO and memorandum.

## *Memorandum*

**Attachment(s):**

1. Draft CCO 191 Memorandum
2. Draft CCO 191
3. SFOBB West Approach Budget Analysis, March 31, 2009



**CONTRACT CHANGE ORDER MEMORANDUM**

DATE: 9/15/2006 Page 1 of 2

TO: Deanna Vilcheck / Rajesh Oberoi			FILE: E.A. 04 - 0435V4	
FROM: Rajesh Oberoi			CO-RTE-PM SF-80-4.9/5.9	
FED. NO.				
CCO#: 191	SUPPLEMENT#: 0	Category Code: CXSA	CONTINGENCY BALANCE (incl. this change) <b>\$12,756,422.50</b>	
COST: <b>\$3,962,180.00</b> INCREASE <input checked="" type="checkbox"/> DECREASE <input type="checkbox"/>			HEADQUARTERS APPROVAL REQUIRED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
SUPPLEMENTAL FUNDS PROVIDED: <b>\$0.00</b>			IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
CCO DESCRIPTION: Contractor-Controlled Insurance Program			PROJECT DESCRIPTION: SEISMIC RETROFIT	
Original Contract Time: <b>1824</b> Day(s)	Time Adj. This Change: <b>0</b> Day(s)	Previously Approved CCO Time Adjustments: <b>301</b> Day(s)	Percentage Time Adjusted: (including this change) <b>17 %</b>	Total # of Unreconciled Deferred Time CCO(s): (including this change) <b>0</b>

**THIS CHANGE ORDER PROVIDES FOR:**

Compensation to the contractor for Contractor-Controlled Insurance Program (CCIP) costs incurred due to Department changes and delays to the contract.

Section 5-1.20 "Contractor-Controlled Insurance Program (CCIP)" of the special provisions requires the contractor to implement an insurance program by which the prime contractor arranges and implements a controlled master insurance property/casualty insurance program covering itself and all of its subcontractors along with all suppliers, manufacturers and vendors when on the jobsite. Section 5-1.20 also instructs the contractor to include the costs of CCIP in the contract bid item for time related overhead. In accordance with these provisions the contractor placed their CCIP costs in Contract Bid Item No. 6 "Time-Related Overhead" (TRO) and bid a total \$21,000 per day for TRO and CCIP costs for the allotted 1,824 contract working days.

Early in the contract, Change Order No. 37 was issued as a no costs change order to provide compensation to the contractor for their up front costs associated with CCIP. The change order acted to remove the contractor's documented CCIP costs out of Contract Item No. 6 "Time-Related Overhead" and provided a lump sum adjustment of compensation of \$11,684,544.00 to be paid as the contractor incurred these up front insurance costs. Similarly, an \$11,684,544.00 adjustment of compensation credit was provided under the change order that credited the appropriate CCIP component of the as-bid time-related overhead bid item as that bid item was paid each month.

Change Order No. 37 also acted to establish a new daily TRO rate of \$14,594 per working day (verses the as-bid \$21,000 per day) for pertaining to any contract time extensions granted by the Department. This reduced rate represents the actual as-bid TRO costs with CCIP costs excluded.

The effect of Change Order No. 37 was to remove all CCIP costs from the time related overhead bid item. It was agreed that all change orders issued after Change Order No. 37 would defer compensation for any CCIP costs associated with the changes being implemented. Accordingly, each change order issued after Change Order No. 37 included a clause that stated any CCIP costs incurred as a result of that particular change would be deferred and that compensation would be provided separately. This change order provides compensation for these deferred costs.

The Department has issued 312 change orders to date and an additional 18 changes orders currently being processed with these changes totaling to a cost of approximately \$102,500,000. In order to establish appropriate compensation for the deferred CCIP costs, the Department has requested that the contractor has submitted copies of the following information:

- 1) Insurance invoices pertaining to the original contract value and added costs resulting from Department issued change orders.
- 2) Original and continuing insurance policies pertaining to CCIP.
- 3) Payroll summary reports as submitted to the contractor's insurance provider.

Based on this documentation, entitlement for the contractor's CCIP costs stemming from all Department changes and delays to the contract has been determined.

Compensation shall be paid as an adjustment of compensation at an agreed lump sum \$3,962,180.00 which shall be financed from the contract's contingency funds. A detailed cost analysis is on file.

**CONTRACT CHANGE ORDER MEMORANDUM**

EA: 0435V4 CCO: 191 - 0

DATE: 9/15/2006

Page 2 of 2

Victor Salazar of Headquarters Construction concurs with this change order

No adjustment of contract time is warranted as this change will not affect the project's controlling operation.

CONCURRED BY:			ESTIMATE OF COST		
Construction Engineer:	Rajesh Oberoi	Date		THIS REQUEST	TOTAL TO DATE
Bridge Engineer:		Date	ITEMS	\$0.00	\$0.00
Project Engineer:	H. Wong	Date	FORCE ACCOUNT	\$0.00	\$0.00
Project Manager:	A. Melkonians	Date	AGREED PRICE	\$0.00	\$0.00
FHWA Rep.:		Date	ADJUSTMENT	\$3,962,180.00	\$3,962,180.00
Environmental:		Date	TOTAL	\$3,962,180.00	\$3,962,180.00
Other (specify):		Date	FEDERAL PARTICIPATION		
Other (specify):		Date	<input type="checkbox"/> PARTICIPATING <input type="checkbox"/> PARTICIPATING IN PART <input checked="" type="checkbox"/> NONE <input type="checkbox"/> NON-PARTICIPATING (MAINTENANCE) <input type="checkbox"/> NON-PARTICIPATING		
District Prior Approval By:		Date	FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)		
HQ (Issue Approve) By:		Date	<input type="checkbox"/> CCO FUNDED PER CONTRACT <input type="checkbox"/> CCO FUNDED AS FOLLOWS		
Resident Engineer's Signature:		Date	FEDERAL FUNDING SOURCE    PERCENT _____ _____ _____		

**CONTRACT CHANGE ORDER**

Change Requested by: Engineer

CCO: 191	Suppl. No. 0	Contract No. 04 - 0435V4	Road SF-80-4.9/5.9	FED. AID LOC.:
----------	--------------	--------------------------	--------------------	----------------

**To: TUTOR-SALIBA CORP**

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. **NOTE: This change order is not effective until approved by the Engineer.**

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

**Adjustment of Compensation at Lump Sum:**

Provide compensation to the Contractor for all costs associated with the Contractor-Controlled Insurance Program (CCIP) specified under Section 5-1.20 of the Special Provisions due to all Department changes and delays to the Contract.

For these costs, the Contractor shall be compensated a lump sum of \$3,962,180.00 which constitutes full and final compensation for all costs, including all markups, associated with this work.

Adjustment of Compensation at Agreed Lump Sum .....\$3,962,180.00

This change order resolves all deferred costs associated with CCIP from all Department issued change orders and no additional compensation shall be granted.

Estimated Cost: Increase ☒ Decrease ☐ **\$3,962,180.00**

By reason of this order the time of completion will be adjusted as follows: 0 days

**Submitted by**

Signature	Resident Engineer Rajesh Oberoi	Date
-----------	------------------------------------	------

**Approval Recommended by**

Signature	Principal Construction Manager Mike Forner	Date
-----------	---	------

**Engineer Approval by**

Signature	Principal Construction Manager Mike Forner	Date
-----------	---	------

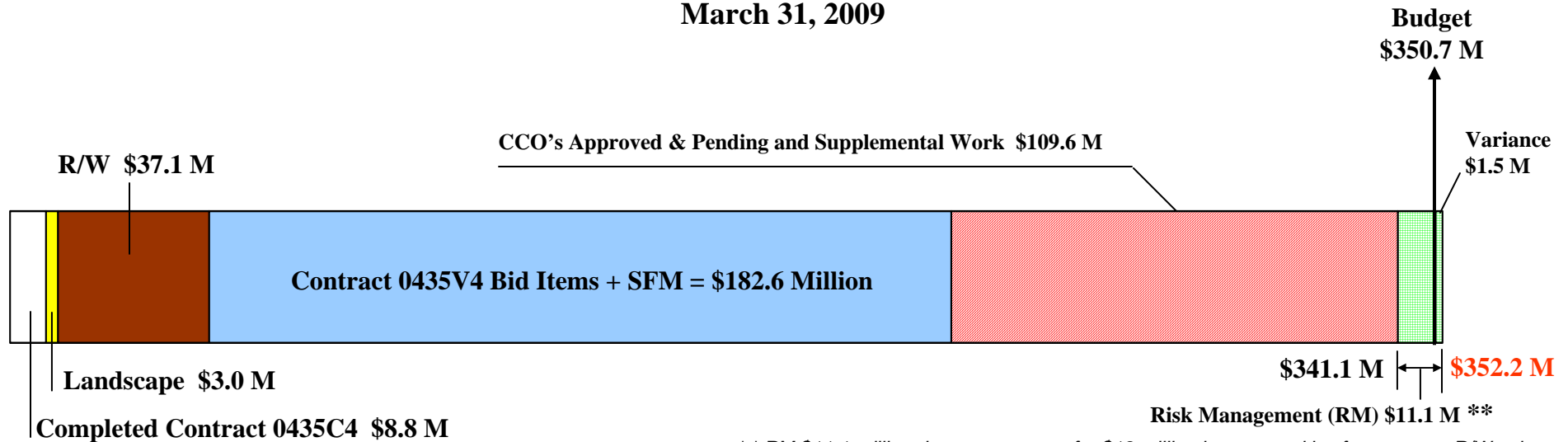
We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

**NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.**

**Contractor Acceptance by**

Signature	(Print name and title)	Date
-----------	------------------------	------

# SFOBB West Approach Budget Analysis March 31, 2009



*\*\* RM \$11.1 million does not account for \$18 million in opportunities from excess R/W sales.*

**Contract 04-0435V4 & 0435C4 SFOBB West Approach**  
**Current Contract Budget Funding Status**  
March 31, 2009 Basis

Contract 0435V4 Contract Items	\$ 177,878,840
State Furnished Materials (SFM)	\$ 6,001,200
Subtotal	\$ 183,880,040
Supplemental Work	\$ 20,828,430
Contingency @ 4.9%	\$ 9,931,530
Subtotal Original Contract Allotment	\$ 214,640,000
Supplemental Budget Allocation Approved	\$ 87,160,000
Pending Supplemental Fund Request Approval	\$ -
Total Current Contract Allotment 0435V4	\$ 301,800,000
Remaining Unallotted Budget	\$ -
West Approach Right of Way (R/W)	\$ 37,141,000
West Approach Landscape	\$ 3,000,000
Completed Contract 0435C4	\$ 8,759,000
Total Current West Approach Contract Budget	\$ 350,700,000

Reported Total Forecast At Completion \$350,700,000  
In 4th Quarter 2008 TBSRP Report

**Contract 04-0435V4 & 0435C4 SFOBB West Approach**  
**Contract Forecast At Completion (FAC) & Variance**  
March 31, 2009 Basis

Contract 0435V4 Contract Items	\$ 177,878,840
State Furnished Materials (SFM)	\$ 4,751,200
Subtotal	\$ 182,630,040
Supplemental Work Remaining	\$ 992,050
CCO's Item Overruns	\$ 775,722
CCO's (Approved (274) + Pending (35) = Total (309))	\$ 104,044,293
CCO's = or > \$1Million Pending (1)	\$ 3,800,000
CCO# Pending POC's approval (0)	\$ -
Total Ongoing Contract 0435V4	\$ 292,242,105
Risk Management Cost - Q4 2008 50% Probable	\$ 11,093,000
West Approach Right of Way (R/W)	\$ 37,141,000
West Approach Landscape	\$ 3,000,000
Completed Contract 0435C4	\$ 8,759,000
Total	\$ 352,235,105

Variance ( Total - Current Budget ) \$ 1,535,105

*Confidential Draft – For Deliberative Purpose Only*

*Quantitative Risk Analysis is ongoing.*

## *Memorandum*

**TO:** Toll Bridge Program Oversight Committee (TBPOC)      **DATE:** April 29, 2009  
**FR:** Ali Banani, Manager of Project Controls, Caltrans  
Peter Lee, Senior Transportation Engineer, BATA  
**RE:** Agenda No. - 3a  
Item- Program Issues  
TBSRP Capital Outlay Support (COS) Update

---

**Recommendation:**

For Information Only

**Cost:**

N/A

**Schedule Impacts:**

N/A

**Discussion:**

Since the last Capital Outlay Support (COS) quarterly update provided to the TBPOC in March 2009, the FY 2008-09 COS expenditure forecast has been reduced by \$3.5 million from \$129.5 million to \$126.0 million. The forecast reduction is primarily due to staff furloughs of 2 days/ month through June 2009, which has resulted in an approximate 10% reduction in staff salaries. The forecast remains below the FY 2008-09 COS budget of \$131.7 million, but above the TBPOC target of \$117.4 million.

Attached is a summary presentation on COS expenditures.

**Attachment(s):**

1. TBSRP Capital Outlay Support (COS) Update, May 2009

# Toll Bridge Seismic Retrofit Program

## Capital Outlay Support (COS) Update

May 2009



# Capital Outlay Support Update

## Agenda :

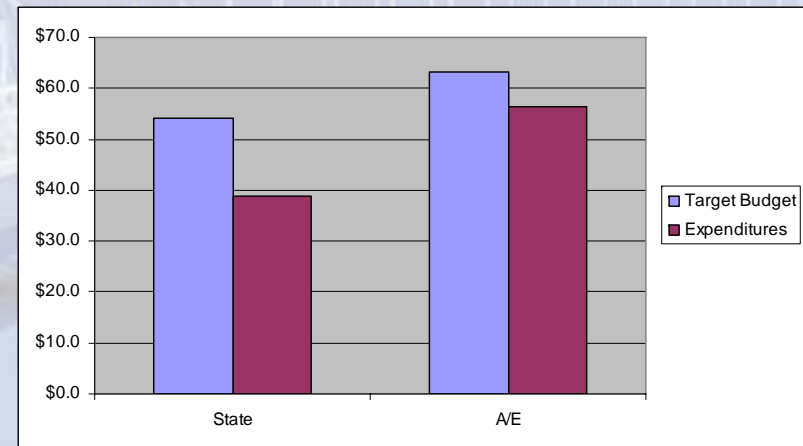
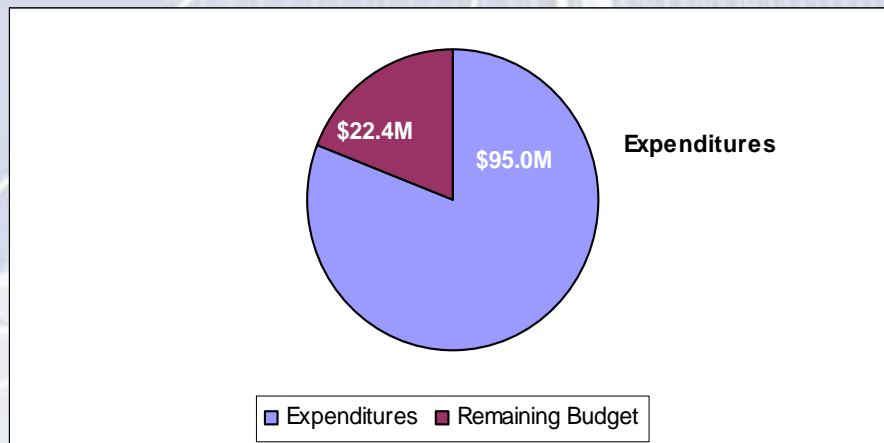
### ➤ FY 08-09 Budget Status



# FY 08-09 Expenditure Analysis

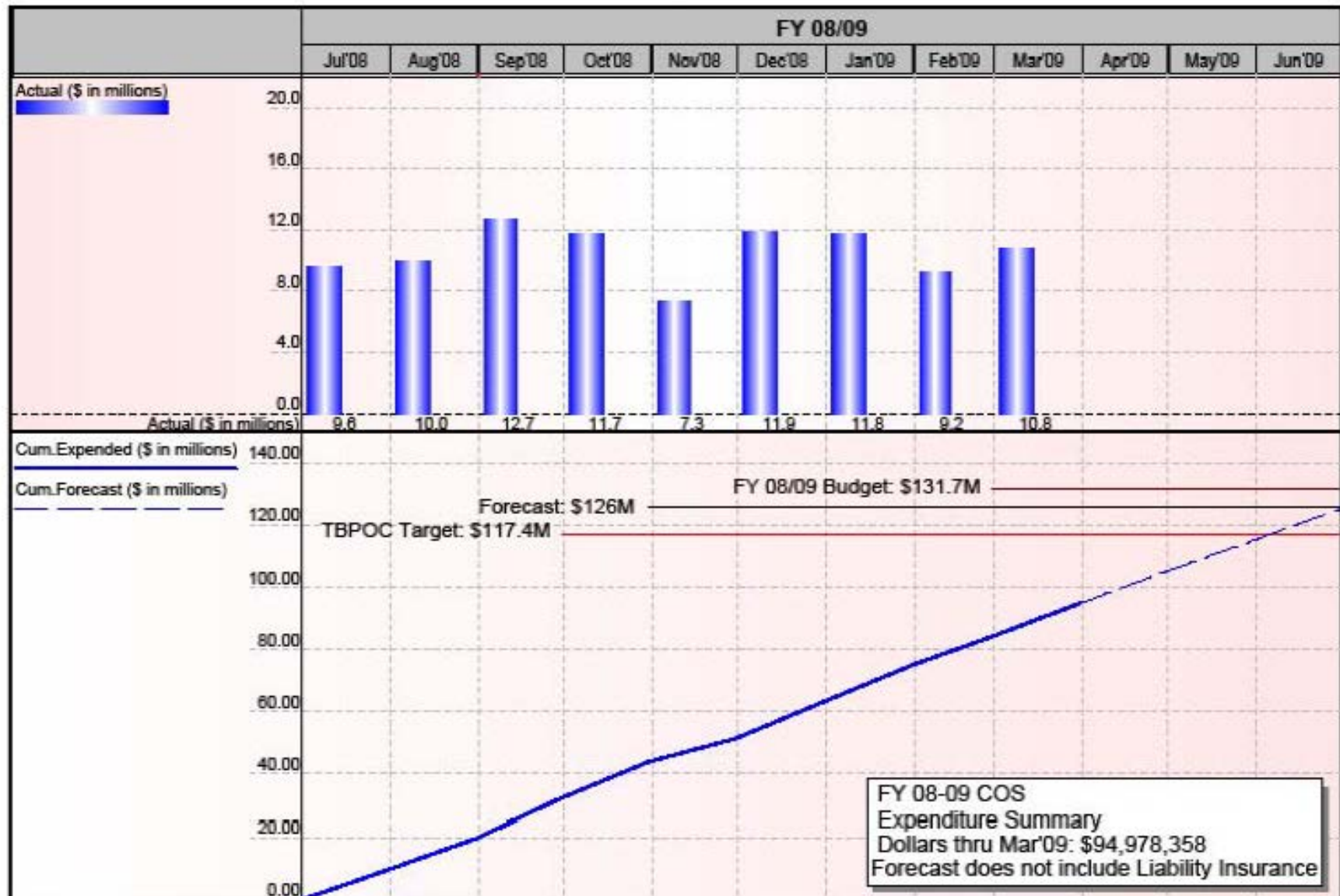
As of March 31, 2009

	<u>Total</u>	<u>State</u>	<u>A/E</u>
Target Budget Expenditures	\$117.4M <u>\$ 95.0M</u>	\$54.1M <u>\$38.7M</u>	\$63.3M <u>\$56.3M</u>
Remaining Budget Contingency	\$22.4M \$14.2M	\$15.4M	\$7.0M





# Toll Bridge Seismic Retrofit Program FY 08/09 COS Expenditure Forecast



# Forecast Change



	Quarter Ending	
	Dec. 31, 2008	March 31, 2009
Forecast*	\$129.5 M	\$126.0M
Change in Forecast		-\$3.5M

\* Excludes Design Liability Insurance

Forecast Reduction Primarily Due to Staff Furloughs of 2 Days/Month Thru  
June 2009

## *Memorandum*

**TO:** Toll Bridge Program Oversight Committee (TBPOC)      **DATE:** April 29, 2009

**FR:** Andrew Fremier, Deputy Executive Director, BATA

**RE:** Agenda No. - 3c  
Item- Program Issues  
Draft First Quarter 2009 Project Progress and Financial Update

---

**Recommendation:**  
**APPROVAL**

**Cost:**  
N/A

**Schedule Impacts:**  
N/A

**Discussion:**

Included in this packet is a draft First Quarter 2009 Project Progress and Financial Update. The report is the first combined report that replaces the previously separate monthly and quarterly reports. The changes are noted in the TBPOC letters to the State Legislature and CTC.

To facilitate the combining of the reports, staff requests that the TBPOC approve the reporting guidelines as noted in Table 1 of the report. Significant changes are as noted:

- The Quarterly Reports will include reporting on the entire Regional Measure 1 Program.
- Cost and schedule budget and forecasts will continue to change generally on a quarterly basis.
- Color Status Coding Definition revised as follows:
  - a. Green – Within approved schedule and budgets
  - b. Yellow – Identified potential project risks that could significantly impact approved schedules and budgets if not mitigated.
  - c. Red – Known project impacts with forthcoming changes to approved schedules and budgets.
- Risk Management discussion will be included in both the quarterly and monthly reporting.

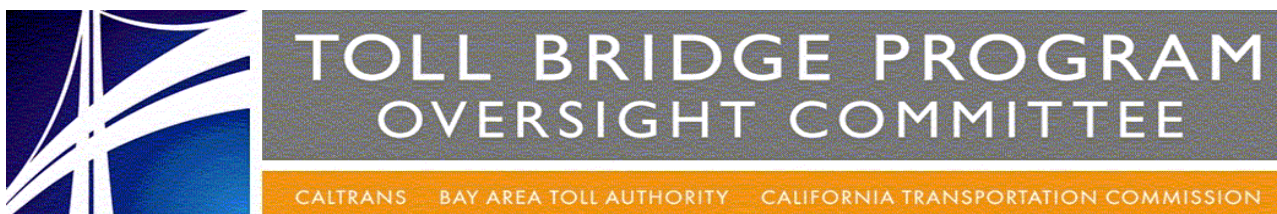
## *Memorandum*

The TBPOC is also requested to grant the PMT authority to approve this report on its behalf after appropriate reviews and final comments on the proposed final draft are received.

Attached, for information, is the First Quarter 2009 Report Production Schedule, which reflects the status of completed report tasks and the schedule for remaining actions.

**Attachment(s):**

1. Draft First Quarter 2009 Project Progress and Financial Update (see end of binder)
2. First Quarter 2009 Report Production Schedule



### First Quarter 2009 Report Production Schedule

<b><i>1st Quarter 2009 Report: Legislated Deadline - May 11, 2009</i></b>	
BAMC Begin Quarterly Report Development; Issue First Call for Input	Monday, March 16, 2009
BAMC Prepare Quarterly Report 1st Draft for PMT, BATA, Caltrans	<b><i>Monday, April 06, 2009</i></b>
PMT / BATA / Caltrans Review & Comment on 1st Draft	<b><i>Friday, April 10, 2009</i></b>
BAMC Incorporate Comments: Produce 2nd Draft for TBPOC Review	Monday, April 13, 2009
<b>TBPOC Review &amp; Comment on 2nd Draft</b>	<b>Thursday, April 16, 2009</b>
Expenditure Update (Anticipated Date)	Thursday, April 23, 2009
BAMC Incorporate Comments; Produce Proposed Final Draft for TBPOC and Agency	Friday, April 24, 2009
BAMC Issue Proposed Final Draft to TBPOC & Agency	Monday, April 27, 2009
<b>TBPOC and Agency Review / Comment on Proposed Final Draft</b>	<b><i>Friday, May 01, 2009</i></b>
BAMC Incorporate Comments: Produce Advanced Final Draft + Table of Conflicting Comments	Monday, May 04, 2009
<b>TBPOC Teleconference to make Final Comments and Resolve Conflicting Comments</b>	<b>Thursday, May 07, 2009</b>
BAMC Incorporate All Final Comments from TBPOC; Emails Final Version for Information	Friday, May 08, 2009
Produce & Issue Quarterly Report to Legislature & CTC	<b>Monday, May 11, 2009</b>



# **Toll Bridge Seismic Retrofit and Regional Measure 1 Programs**

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**First Quarter 2009**

**Project Progress and Financial Update**

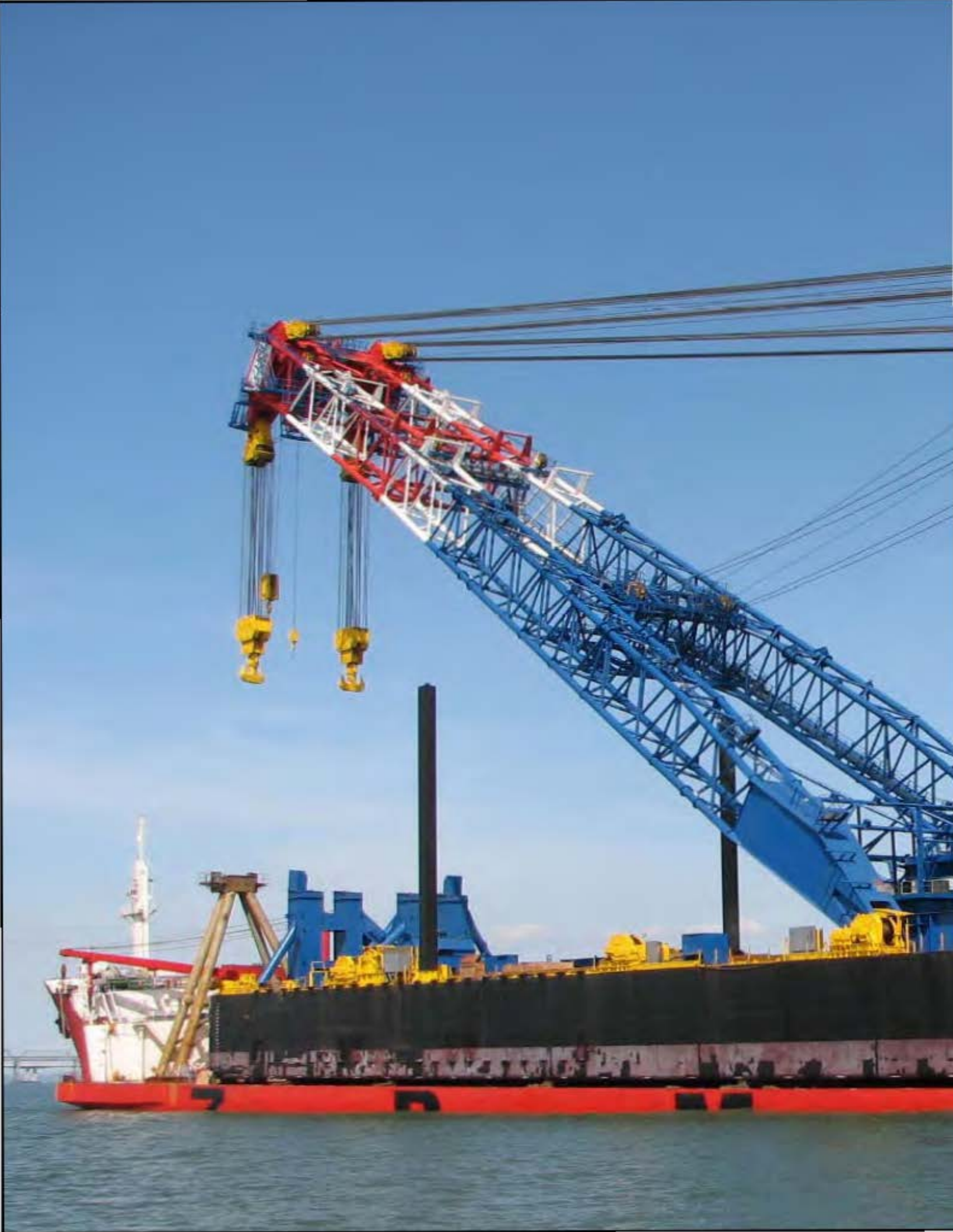
**DRAFT  
VERSION 6.0**



**TOLL BRIDGE PROGRAM  
OVERSIGHT COMMITTEE**

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

**Released: May 2009**





# TOLL BRIDGE SEISMIC RETROFIT AND REGIONAL MEASURE 1 PROGRAMS

## First Quarter 2009 Project Progress and Financial Update



TOLL BRIDGE PROGRAM  
OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION





Toll Bridge Program Oversight Committee  
Department of Transportation  
Office of the Director  
1120 N Street  
P.O. Box 942873  
Sacramento, CA 94273-0001

May 11, 2009

Mr. Bob Alvarado, Chair  
California Transportation Commission  
1120 N Street, Room 2221  
Sacramento, CA 95814

Mr. James Earp, Vice-Chair  
California Transportation Commission  
1120 N Street, Room 2221  
Sacramento, CA 95814

Dear Commissioners Alvarado and Earp:

The Toll Bridge Program Oversight Committee (TBPOC) is pleased to submit the First Quarter 2009 Project Progress and Financial Update Report. The TBPOC consists of the Director of Caltrans, the Executive Director of the Bay Area Toll Authority (BATA), and the Executive Director of the California Transportation Commission.

On the San Francisco-Oakland Bay Bridge East Span Seismic Replacement Project, this year will be one of the most critical for the new east span with a number of milestone activities. On March 12, 2009, we received delivery of a new 1,700 ton capacity shearleg crane barge (the largest on the west coast) that will be used to lift sections of the new bridge into place. Towards the middle of the year, the first shipments of steel roadway sections are scheduled to arrive. These sections will be followed by the tower segments later in the year. Finally, a weekend closure of the Bay Bridge is scheduled for over the 2009 Labor Day weekend to roll out a section of the existing bridge and to roll in a new section. The new roll-in section will detour traffic off the existing tunnel approach, which allows for the construction of new transition structures from the SAS bridge to the Yerba Buena Tunnel.

These milestones are being achieved by the hard work and dedication of the contractor, consultant, and Caltrans staff; however, as we have reported in past quarterly reports, there have been challenges to keeping the project on schedule. For example, while there have been recent news reports concerning challenges with the steel fabrication, no part of the new bridge will be shipped unless it is fit to be installed. The TBPOC is negotiating directly with the SAS contractor to mitigate schedule delays. No additional funds beyond those already authorized are needed to resolve these issues and the bridge is scheduled to open as currently scheduled in 2012 westbound and 2013 eastbound.

In March 2009, Caltrans and BATA completed the 65 percent design plans for the seismic retrofits of the Dumbarton and Antioch Bridges. When first developed, the seismic retrofit program excluded these two bridges based on their relatively young age and studies performed at the time. Further seismic vulnerability studies have determined that the bridges are in need of an estimated \$950 million in retrofit work. Full funding for the retrofit work has not yet been identified and will require legislative resolution in the next year. Our staff looks forward to discussing the projects with you.

This report is prepared pursuant to California Streets and Highways Code Section 30952.2 to keep the Legislature apprised of the progress and financial status of the Toll Bridge Seismic Retrofit Program (TBSRP). Information on the Regional Measure 1 (RM1) Toll Bridge Program is provided as supplemental information.

The TBPOC is committed to providing the Legislature with comprehensive and timely reporting on the TBSRP. If there are any questions, or if any additional information is required, please do not hesitate to contact the members of the TBPOC.

Sincerely,

WILL KEMPTON  
Director  
California Department of Transportation  
Chair, TBPOC

BIMLA RHINEHART  
Executive Director  
California Transportation Commission

STEVE HEMINGER  
Executive Director  
Bay Area Toll Authority



Toll Bridge Program Oversight Committee  
Department of Transportation  
Office of the Director  
1120 N Street  
P.O. Box 942873  
Sacramento, CA 94273-0001

May 11, 2009

Mr. Gregory Schmidt  
Secretary of the Senate  
State Capitol, Room 3044  
Sacramento, CA 95814

Mr. E. Dotson Wilson  
Chief Clerk of the Assembly  
State Capitol, Room 3196  
Sacramento, CA 95814

Dear Messrs. Schmidt and Wilson:

The Toll Bridge Program Oversight Committee (TBPOC) is pleased to submit the First Quarter 2009 Project Progress and Financial Update Report. The TBPOC consists of the Director of Caltrans, the Executive Director of the Bay Area Toll Authority (BATA), and the Executive Director of the California Transportation Commission.

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Sincerely,

WILL KEMPTON  
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California Transportation Commission

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Executive Director  
Bay Area Toll Authority

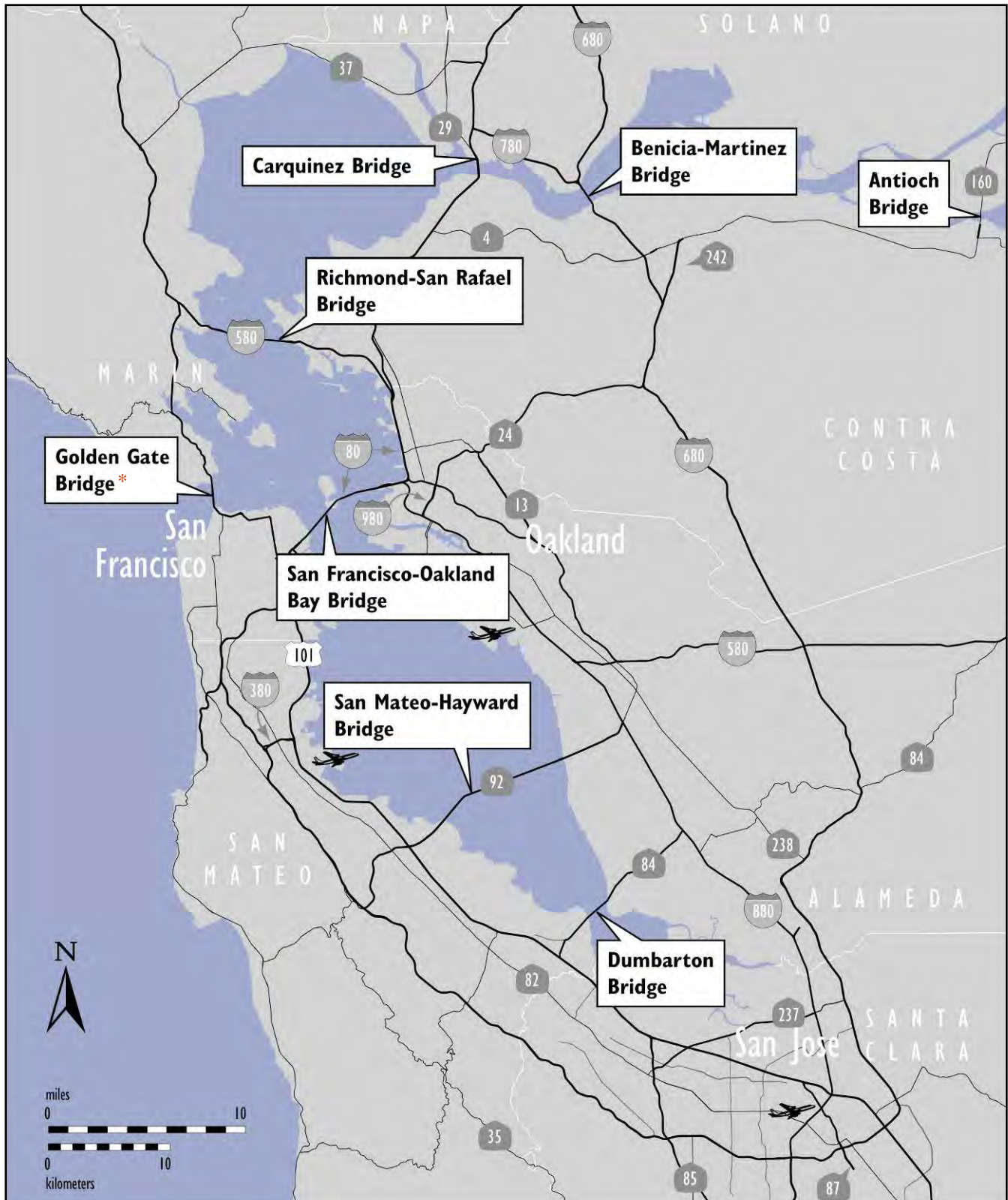


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## Map of Bay Area Toll Bridges



\* The Golden Gate Bridge is owned and operated by the Golden Gate Bridge, Highway, and Transportation District.

## Introduction

In July 2005, Assembly Bill (AB) 144 (Hancock) created the Toll Bridge Program Oversight Committee (TBPOC) to implement a project oversight and project control process for the Benicia-Martinez Bridge project and the State Toll Bridge Seismic Retrofit Program projects. The TBPOC consists of the Caltrans Director, the Bay Area Toll Authority (BATA) Executive Director and the Executive Director of the California Transportation Commission( CTC). The TBPOC's project oversight and control processes include, but are not limited to, reviewing bid specifications and documents, providing field staff to review ongoing costs, reviewing and approving significant change orders and claims in excess of \$1 million (as defined by the committee) and preparing project reports.

AB 144 identified the Toll Bridge Seismic Retrofit Program and the new Benicia-Martinez Bridge Project as being under the direct oversight of the TBPOC. The Toll Bridge Seismic Retrofit Program includes:

Toll Bridge Seismic Retrofit Projects	Seismic Safety Status
San Francisco-Oakland Bay Bridge East Span Replacement	Construction
San Francisco-Oakland Bay Bridge West Approach Replacement	Complete
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit	Complete
San Mateo-Hayward Bridge Seismic Retrofit	Complete
Richmond-San Rafael Bridge Seismic Retrofit	Complete
1958 Carquinez Bridge Seismic Retrofit	Complete
1962 Benicia-Martinez Bridge Seismic Retrofit	Complete
San Diego-Coronado Bridge Seismic Retrofit	Complete
Vincent Thomas Bridge Seismic Retrofit	Complete

The new Benicia-Martinez Bridge is part of a larger program of toll-funded projects called the Regional Measure 1 (RM1) Toll Bridge Program under the responsibility of BATA and Caltrans. While the rest of the projects in the RM1 program are not directly under the responsibility of the TBPOC, BATA and Caltrans will continue to report on their progress as an informational item. The RM1 program includes:

Regional Measure 1 Projects	Open to Traffic Status
Interstate 880/State Route 92 Interchange Reconstruction	Construction
1962 Benicia-Martinez Bridge Reconstruction	Construction
New Benicia-Martinez Bridge	Open
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Open
Richmond-San Rafael Bridge Trestle, Fender & Deck Joint Rehabilitation	Open
Westbound Carquinez Bridge Replacement	Open
San Mateo-Hayward Bridge Widening	Open
State Route 84 Bayfront Expressway Widening	Open
Richmond Parkway	Open



## SUMMARY OF MAJOR PROJECT HIGHLIGHTS, ISSUES, AND ACTIONS



SAS Roadway Boxes in Fabrication

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Replacement Project

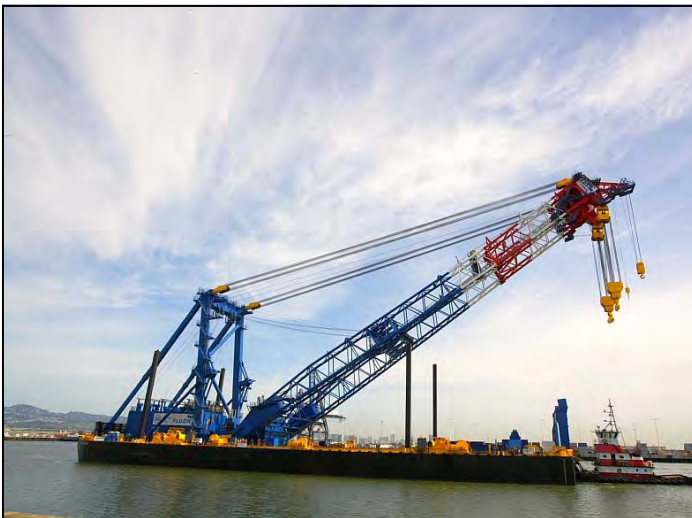
#### SAS Superstructure Contract

The contractor for the Self-Anchored Suspension (SAS) Bridge, American Bridge/Fluor, continues work on both the fabrication of major bridge components around the world and on the temporary support structures in the bay.

The contractor has reported that fabrication of the steel tower and roadway boxes has fallen behind schedule, due to the shop preparation process and the complexity of the fabrication. This delay has not yet affected the expected opening date of the bridge in 2013. The TBPOC and the contractor continue to negotiate a mitigation proposal. The cost for this agreement is within the contract contingency set aside and should not affect the overall program budget. The TBPOC and contractor continue to evaluate all options to accelerate the project.

To mitigate future project risks, Caltrans has established risk management teams to evaluate risks to completing the project on time and on budget. In particular, teams are reviewing cable erection plans and mitigation schedules. Caltrans is also continuing their quality assurance process so that no part of the new bridge will be shipped unless it is fit to be installed.

Out on the bay, the contractor continues to erect the temporary support structures that span from Yerba Buena Island to the Skyway. These structures will support the SAS bridge before the cable system is installed. With the arrival of the shear-leg crane barge from China on March 12, 2009, the longer and heavier segments of the temporary support structures can be lifted into the place.



Shear-Leg Crane Barge Arrived in San Francisco Bay on March 12, 2009



Temporary Support Structures for the SAS Bridge Erection

## Yerba Buena Island Detour Contract

The Yerba Buena Island Detour contractor, CC Myers, continues to erect the detour structure that will divert traffic off the existing bridge to the detour structure that will tie the existing bridge to the Yerba Buena Island tunnel. The traffic switch has been scheduled for Labor Day Weekend 2009 and will require a full closure of the Bay Bridge over that entire weekend. In addition to work on the detour structure, the contractor is making progress on a number of accelerated foundations for the future transition structure from the SAS to the tunnel.

The contract originally intended to put traffic on a temporary detour in 2006 to meet an earlier east span replacement schedule. To better integrate the contract into the current east span schedule, improvement seismic safety and mitigate future construction risks, the TBPOC has approved a number of changes to the contract, including adding the deck replacement work near the tunnel that was rolled into place over Labor Day Weekend 2007, advancing future transition structure foundation work and making design enhancement to the temporary detour structure.

These changes have increased budget and forecast for the contract to cover the revised project scope and potential project risks, however; the increased costs are funded from savings from other projects and the overall program contingency.



Yerba Buena Island Detour Structure Under Construction

## SUMMARY OF MAJOR PROJECT HIGHLIGHTS, ISSUES, AND ACTIONS



Recently Reopened Harrison Street Off-Ramp

### SFOBB West Approach Seismic Replacement Project

Caltrans certified seismic safety on the San Francisco-Oakland Bay Bridge West Approach Seismic Replacement Project in December 2008 - eight months ahead of schedule. On February 9, 2009, Caltrans reopened the Harrison Street westbound off-ramp from the Bay Bridge after being closed for over three years for construction. The contract was substantially completed in February 2009 with only final closeout and punchlist work remaining.

### TBSRP Risk Management Issues

Risk management assessments of the program have identified a program cost risk due for capital outlay support. Due to past project delays to the East Span Replacement Project, including the re-advertisement of the SAS contract and the 12 month schedule extension to maximize the number of bidders for the contract, there is expected to be an increase in project support costs unless the project schedule is significantly reduced. Further increases in project support costs would be expected if the project is delayed beyond the 2013 bridge opening dates.



Antioch Bridge

### Seismic Retrofit of the Dumbarton and Antioch Bridges

When first conceived, the Toll Bridge Seismic Retrofit Program only identified seven of the nine state-owned toll bridges to be in need of seismic retrofit, excluding the Dumbarton and Antioch bridges. Further seismic vulnerability studies were completed by Caltrans and BATA on those structures, which determined that both structures were in need of retrofit based on current seismic standards. While final designs for the retrofit of the bridges is still being prepared, the total cost to retrofit both structures is estimated to be \$950 million. Full funding for the project has not yet been identified, but will likely come from a combination of sources, including toll increases and other state or federal funding.





**New Bicycle/Pedestrian Pathway on Benicia Martinez Bridge**

## **New Benicia-Martinez Bridge Project**

On the 1962 Benicia-Martinez Bridge Modification Contract, work to modify the southbound I-680 bridge to add an additional traffic lane and bicycle/pedestrian lane is proceeding. Caltrans is forecasting the work to be completed at least two months ahead of schedule in October 2009.



**New East Route 92 to North Interstate 880 Direct Connector Under Construction**

## **Interstate 880/State Route 92 Interchange Reconstruction Project**

On the Interchange Reconstruction Contract, the new east Route 92 to North Interstate 880 direct connector structure (ENCONN) is nearing completion and is scheduled to open to detour traffic in mid-May.

## Toll Bridge Seismic Retrofit Program Cost Summary

	Contract Status	AB 144/SB 66 Budget (Jul 2005)	TBPOC Approved Changes	Current TBPOC Approved Budget (Mar 2009)	Cost to Date (Feb 2009)	Current Cost Forecast (Mar 2009)	Cost Variance	Cost Status
		a	b	c = a + b	d	e	f = e - c	
<b>SFOBB East Span Seismic Replacement</b>								
Capital Outlay Construction								
Skyway	Completed	1,293.0	(38.9)	1,254.1	1,236.7	1,254.1	-	●
SAS Marine Foundations	Completed	313.5	(32.6)	280.9	275.0	280.9	-	●
SAS Superstructure	Construction	1,753.7	-	1,753.7	648.1	1,767.4	13.7	●
YBI Detour	Construction	132.0	310.2	442.2	290.8	461.2	19.0	●
YBI Transition Structures (YBITS)		299.3	(23.2)	276.1	-	276.1	-	●
YBITS 1	Advertised				-	214.3		●
YBITS 2	Design				-	58.5		●
YBITS Landscaping	Design				-	3.3		●
Oakland Touchdown		283.8	-	283.8	156.8	302.5	18.7	●
OTD 1	Construction				148.9	226.5		●
OTD 2	Design				-	62.0		●
OTD Electrical Systems	Design				-	4.4		●
Submerged Electric Cable	Completed				7.9	9.6		●
Existing Bridge Demolition	Design	239.2	-	239.2	-	222.0	(17.2)	●
Stormwater Treatment Measures	Completed	15.0	3.3	18.3	16.7	18.3	-	●
Other Completed Contracts	Completed	90.3	-	90.3	89.2	90.3	-	●
Capital Outlay Support		959.3	-	959.3	694.9	977.1	17.8	●
Right-of-Way and Environmental Mitigation		72.4	-	72.4	50.2	72.4	-	●
Other Budgeted Capital		35.1	(3.3)	31.8	0.7	7.7	(24.1)	●
<b>Total SFOBB East Span Replacement</b>		<b>5486.6</b>	<b>215.5</b>	<b>5,702.1</b>	<b>3,459.1</b>	<b>5,730.0</b>	<b>27.9</b>	
<b>SFOBB West Approach Replacement</b>								
Capital Outlay Construction	Completed	309.0	41.7	350.7	311.1	350.7	-	●
Capital Outlay Support		120.0	-	120.0	114.1	120.0	-	●
<b>Total SFOBB West Approach Replacement</b>		<b>429.0</b>	<b>41.7</b>	<b>470.7</b>	<b>425.2</b>	<b>470.7</b>	<b>-</b>	
<b>Completed Program Projects</b>	<b>Completed</b>	<b>1,839.4</b>	<b>(97.5)</b>	<b>1,741.9</b>	<b>1,713.3</b>	<b>1,741.9</b>	<b>-</b>	●
<b>Miscellaneous Program Costs</b>		<b>30.0</b>	<b>-</b>	<b>30.0</b>	<b>24.7</b>	<b>30.0</b>	<b>-</b>	●
<b>Program Contingency</b>		<b>900.0</b>	<b>(159.7)</b>	<b>740.3</b>	<b>-</b>	<b>712.4</b>	<b>(27.9)</b>	
<b>Total Toll Bridge Seismic Retrofit Program</b>		<b>8,685.0</b>	<b>-</b>	<b>8,685.0</b>	<b>5,622.3</b>	<b>8,685.0</b>	<b>-</b>	●

- Within Approved Current Schedule and Budget
- Potential Cost and Schedule Impacts: Possible future need for Program Contingency Allocation
- Known Cost and Schedule Impacts: Request for Program Contingency Allocation forthcoming

## Toll Bridge Seismic Retrofit Program Schedule Summary

	AB144/SB 66 Project Completion Schedule Baseline (Jul 2005)	TBPOC Approved Changes (Months)	Current TBPOC Approved Completion Schedule (Mar 2009)	Current Completion Forecast (Mar 2009)	Schedule Variance (Months)	Schedule Status	Remarks/Notes
	g	h	i = g + h	j	k = j - i	l	
<b>SFOBB East Span Seismic Replacement</b>							
Contract Completion							
Skyway	Apr 2007	8	Dec 2007	Dec 2007	-	●	See Page 32
SAS Marine Foundations	Jun 2008	(5)	Jan 2008	Jan 2008	-	●	See Page 22
SAS Superstructure	Mar 2012	12	Mar 2013	Mar 2013	-	●	See Page 23
YBI Detour	Jul 2007	36	Jun 2010	Jun 2010	-	●	See Page 16
YBI Transition Structures (YBITS)	Nov 2013	12	Nov 2014	Nov 2014	-		See Page 20
YBITS 1			Sep 2013	Sep 2013	-	●	
YBITS 2			Nov 2014	Nov 2014	-	●	
YBITS Landscaping			TBD	TBD	-	●	
Oakland Touchdown	Nov 2013	12	Nov 2014	Nov 2014	-		See Page 34
OTD 1			May 2010	May 2010	-	●	
OTD 2			Nov 2014	Nov 2014	-	●	
OTD Electrical Systems			TBD	TBD	-	●	
Submerged Electric Cable			Jan 2008	Jan 2008	-	●	
Existing Bridge Demolition	Sep 2014	12	Sep 2015	Sep 2015	-	●	
Stormwater Treatment Measures	Mar 2008	-	Mar 2008	Mar 2008	-	●	
<b>SFOBB East Span Bridge Opening and Other Milestones</b>							
OTD West Bound Access			Jan 2010	Jan 2010	-	●	
YBI Detour Open			Sep 2009	Sep 2009	-	●	See page 18
West Bound Open	Sep 2011	12	Sep 2012	Sep 2012	-	●	
East Bound Open	Sep 2012	12	Sep 2013	Sep 2013	-	●	
<b>SFOBB West Approach Replacement</b>							
Contract Completion	Aug 2009	(7)	Jan 2009	Jan 2009	-	●	See page 39

**Notes:** 1) Figures may not sum up to totals due to rounding effects.  
 2) TBSRP Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with quarterly risk analysis assessments for the TBSRP Projects.

## Regional Measure 1 Program Cost Summary

	Contract Status	BATA Baseline Budget (Jul 2005)	BATA Approved Changes	Current BATA Approved Budget (Mar 2009)	Cost to Date (Feb 2009)	Current Cost Forecast (Mar 2009)	Cost Variance	Cost Status
		a	b	c = a + b	d	e	f = e - c	
<b>New Benicia-Martinez Bridge</b>								
Capital Outlay Construction	Construction	861.6	173.5	1,035.1	980.0	1,035.1	-	●
Capital Outlay Support		157.1	35.2	192.3	186.1	192.3	-	●
Capital Outlay Right-of-Way		20.4	(0.1)	20.3	17.0	20.3	-	●
Project Reserve		20.8	4.0	24.8	-	24.8		
<b>Total New Benicia-Martinez Bridge</b>		<b>1,059.9</b>	<b>212.6</b>	<b>1,272.5</b>	<b>1,183.1</b>	<b>1,272.5</b>		
<b>Interstate 880/Route 92 Interchange Reconstruction</b>								
Capital Outlay Construction	Construction	94.8	60.2	155.0	56.7	155.0	-	●
Capital Outlay Support		28.8	26.2	55.0	45.5	55.0	-	●
Capital Outlay Right-of-Way		9.9	7.0	16.9	11.6	16.9	-	●
Project Reserve		0.3	17.8	18.1	-	18.1		
<b>Total I-880/SR-92 Interchange Reconstruction</b>		<b>133.8</b>	<b>111.2</b>	<b>245.0</b>	<b>113.8</b>	<b>245.0</b>		
<b>Completed Program Projects</b>		<b>918.9</b>	<b>-</b>	<b>918.9</b>	<b>878.5</b>	<b>898.9</b>	<b>(20.0)</b>	
<b>Total Regional Measure 1 Toll Bridge Program</b>		<b>2,112.6</b>	<b>323.8</b>	<b>2,436.4</b>	<b>2,175.4</b>	<b>2,416.4</b>	<b>(20.0)</b>	

- Within Approved Current Schedule and Budget
- Potential Cost and Schedule Impacts: Possible future need for Program Contingency Allocation
- Known Cost and Schedule Impacts: Request for Program Contingency Allocation forthcoming

## Regional Measure 1 Program Schedule Summary

	BATA Baseline Completion Schedule (Jul 2005)	BATA Approved Changes (Months)	Current BATA Approved Completion Schedule (Mar 2009)	Current Completion Forecast (Mar 2009)	Schedule Variance (Months)	Schedule Status	Remarks/Notes
	g	h	i = g + h	j	k = j - i	l	
<b>New Benicia-Martinez Bridge</b>							
Contract Completion							
1962 BM Bridge Reconstruction	Dec 2009	-	Dec 2009	Oct 2009	(2)	●	See Page 58
<b>New Benicia-Martinez Bridge Opening Date</b>							
New Bridge	Dec 2007	(4)	Aug 2007	Aug 2007	-	●	
<b>Interstate 880/Route 92 Interchange Reconstruction</b>							
Contract Completion							
Interchange Reconstruction	Dec 2010	5	Jun 2011	Jun 2011	-	●	See Page 60

**Notes:** 1) Figures may not sum to totals due to rounding effects.







**TOLL BRIDGE SEISMIC RETROFIT PROGRAM**



## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### San Francisco-Oakland Bay Bridge Seismic Retrofit Strategy

When a 250-ton section of the upper deck of the East Span collapsed during the 7.1- magnitude Loma Prieta earthquake in 1989, it was a wake-up call for the entire Bay Area. While the East Span quickly reopened within a month, critical questions lingered; how could the Bay Bridge - a vital regional lifeline structure - be strengthened to withstand the next major earthquake? Seismic experts from around the world determined that to make each of the separate elements seismically safe on a bridge of this size, the work must be divided into numerous projects. Each project presents unique challenges. Yet there is one common challenge - the need to accommodate the more than 280,000 vehicles that cross the bridge each day.

#### West Approach Seismic Replacement Project

**Project Status: Completed 2008**

Seismic safety retrofit work on the West Approach in San Francisco - bounded on the west by 5th Street and on the east by the anchorage of the west span at Beale Street - involved completely removing and replacing this one-mile stretch of Interstate 80, as well as six on and off-ramps within the confines of the West Approach's original footprint.



Completed West Approach Replacement Structure

#### West Span Seismic Retrofit Project

**Project Status: Completed 2004**

The West Span lies between Yerba Buena Island and San Francisco and is made up of two complete suspension spans connected at a center anchorage. Retrofit work included adding massive amounts of steel and concrete to strengthen the entire West Span, along with new seismic shock absorbers and bracing.



West Span of the Bay Bridge While Undergoing Seismic Retrofit



## East Span Seismic Replacement Project

### Project Status: **Under Construction**

Rather than a seismic retrofit, the two-mile-long East Span is being completely rebuilt. When completed, the new East Span will consist of several different sections, but will appear as a single streamlined span. The eastbound and westbound lanes of the East Span will no longer include upper and lower decks. The lanes will instead be parallel, providing motorists with expansive views of the bay. These views also will be enjoyed by bicyclists and pedestrians thanks to a new path on the south side of the bridge that will extend all the way to Yerba Buena Island. The new span will be aligned north of the existing bridge to allow traffic to continue flowing on the existing bridge as crews build the new span.

The new span will feature the world's longest Self-Anchored Suspension (SAS) bridge that will be connected to an elegant roadway supported by piers (Skyway), which will gradually slope down towards the Oakland shoreline (Oakland Touchdown). A new Transition Structure on Yerba Buena Island (YBI) will connect the SAS to the YBI tunnel and will transition the East Span's side-by-side traffic to the upper and lower decks of the tunnel and west span.

When construction of the new East Span is complete and vehicles have been safely rerouted to it, the original East Span will be demolished.



Simulation of New East Span in Relation to West Span and the Golden Gate Bridge







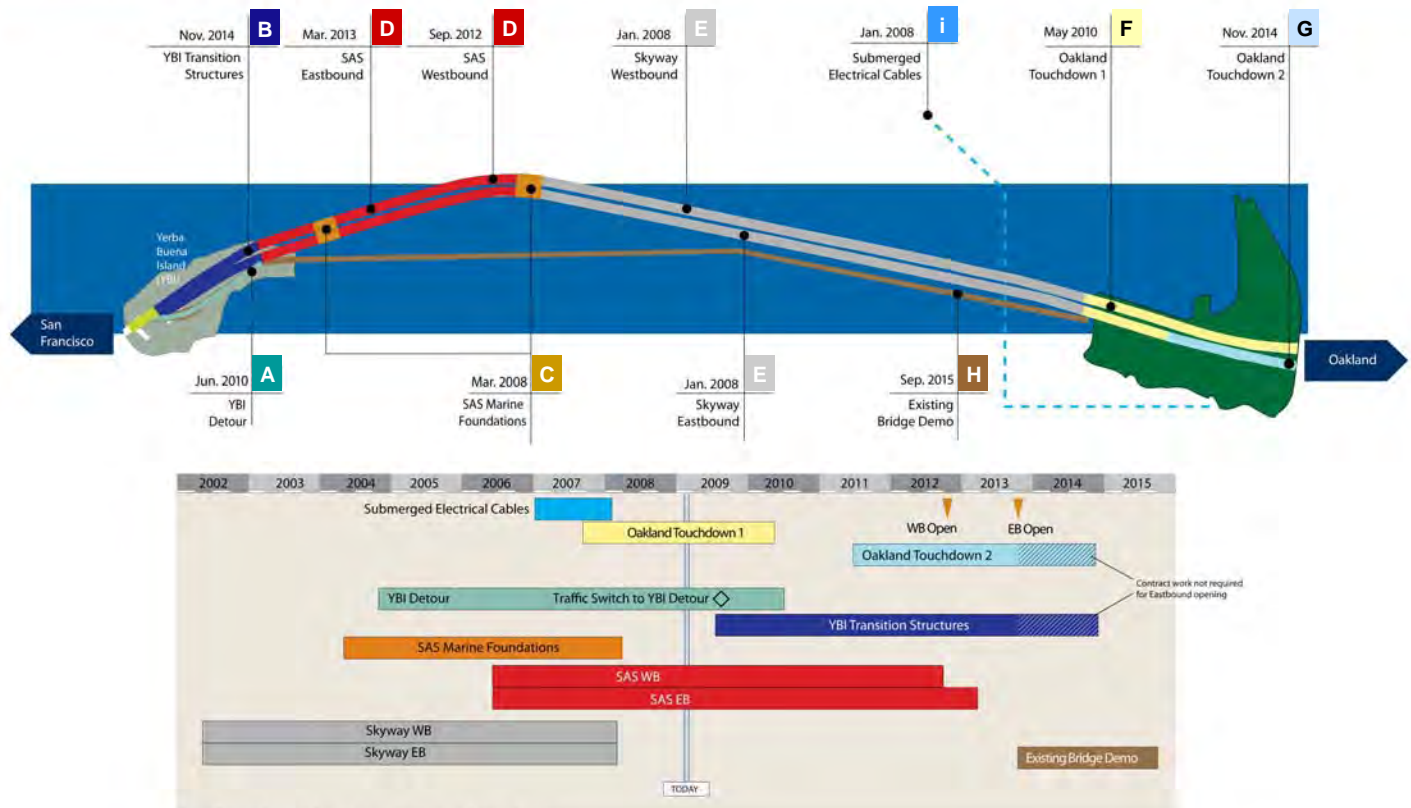
## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### San Francisco-Oakland Bay Bridge East Span Replacement Project Summary

The new East Span bridge can be split into four major components - the Skyway and the Self-Anchored Suspension Bridge in the middle and the Yerba Island Transition Structures and Oakland Touchdown approaches at either end. Each component is being constructed by one to three separate contracts that all have been sequenced together.

Highlighted below are the major East Span contracts including their schedules. The letter designation before each contract corresponds to contract descriptions in the rest of the report.

#### SFOBB East Span Work Sequence





## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### San Francisco-Oakland Bay Bridge East Span Replacement Project Yerba Buena Island Detour (YBID)

As with all of the Bay Bridge's seismic retrofit projects, crews must build the Yerba Buena Island Transition Structures (YBITS) close to moving vehicles and without disrupting traffic. To accomplish this daunting task, eastbound and westbound traffic will be shifted off the existing roadway and onto a temporary detour supported by 200-foot-tall steel towers. Drivers will use this detour, just south of the original roadway, until traffic is moved onto the new East Span.

#### A YBID Contract

Contractor: C.C. Myers Inc.

Approved Capital Outlay Budget: \$442.2 M

Status: **64% Complete**

This contract originally was awarded in early 2004 to construct the detour structure for the planned 2006 opening of the new East Span. Due to the re-advertisement of the SAS superstructure contract in 2005 because of a lack of funding at the time, the bridge opening was rescheduled to 2013. This necessitated a temporary suspension of the detour contract and brought about design changes to the viaduct. Now, in addition to a more robust detour viaduct, the contract has already replaced the tunnel approach on the upper deck and will advance a number of foundations and columns for the Yerba Buena Island Transition Structures.



Current Progress on Detour Structure



Successful Labor Day Weekend 2007 Roll-In of Replacement Tunnel Approach Roadway

#### ***Tunnel Approach Roadway Replacement***

The first in a series of activities to open the detour viaduct was completed in 2007 with the replacement of a 350-foot long stretch of upper deck roadway just east of the Yerba Buena Island tunnel. During this historic milestone, the entire Bay Bridge was closed over the 2007 Labor Day weekend so crews could demolish and replace the old section of the deck with a seismically upgraded 6,500-ton precast section of viaduct that was literally pushed into place (see photo above).

**Status:** Completed.

### Detour Viaduct Fabrication and Construction

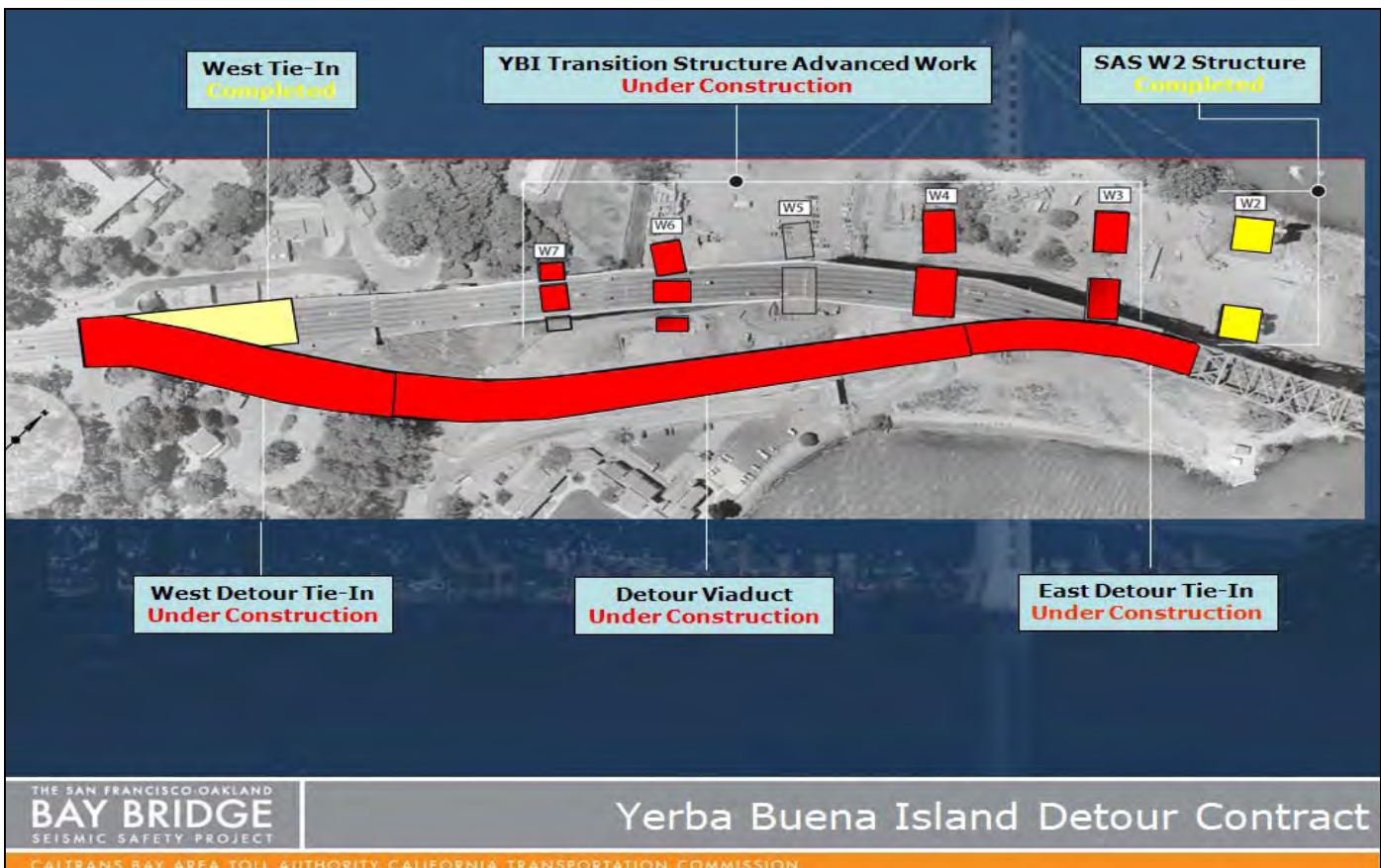
The detour viaduct will run generally parallel to the existing lanes on the island and will tie back into the existing bridge and tunnel. While speed limits will be reduced due to the turns needed to get on and off the detour, the viaduct will look quite similar to the existing bridge with steel cross beams and girders and a concrete roadway deck. To insure a good fit, the steel viaduct truss members were pre-fitted during fabrication in South Korea and Oregon. Opening of the detour to traffic is discussed on the following page.

**Status:** Most of the center portion of the detour viaduct has already been erected, including the concrete decks. At the west end of the detour, a cast-in-place concrete transition span is being poured to connect the detour into the completed tunnel approach roadway replacement span. At the east end, support structures are being erected to facilitate the roll-out/roll-in of the last truss section, which will tie the detour into the existing bridge.

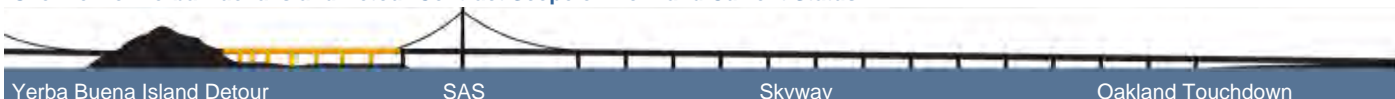
### Demolition of Existing Viaduct

After shifting traffic onto the detour structure, crews will focus on the demolition of the existing transition structure into the tunnel. The old transition structure will need to be removed before construction of the new transition structures from the SAS bridge to the YBI tunnel can be completed.

**Status:** The start of the demolition is pending the opening of the detour.



#### Overview of Yerba Buena Island Detour Contract Scope of Work and Current Status





## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### *Yerba Buena Island Detour (YBID) East Tie-in Opening Activities*

Shifting traffic to the Yerba Buena Island detour will be the most significant realignment of the bridge to date. To accomplish this, crews will cut away a 288-foot portion of the existing truss bridge and replace it with a connection to the detour. This dramatic maneuver will involve aerial construction that occurs more than 100 feet above the ground. When the Bay Bridge reopens to traffic, vehicles will travel on the detour until the completion of the new East Span.

A detailed step-by-step construction sequence for the roll-out of existing span and roll-in of the new truss at the east tie-in to the detour viaduct structure is provided on the facing page.

**Status:** The YBID contractor is currently at stage one and is erecting the support structure and skid beam for the roll-out and roll-in operations (see photos on right). The new truss is in



Skid Beams for Roll-Out and Roll-In of East Tie-in



Yerba Buena Island Detour Viaduct under Construction (foreground) with East Tie-In Support Structures Being Erected (right)



## East Tie-in Activities From Now through August 2009

Erect skid bents and falsework



**Stage 1** — As the detour viaduct is being constructed (left), a support structure of falsework will be erected to support the new and existing trusses and the skid bent girders on which the trusses will move.

Erect truss



**Stage 2** — The new roll-in truss will be constructed atop the skid bent just south of the existing truss.

Close existing bridge



**Stage 3** — When the roll-in truss and detour viaduct are ready to be installed and opened to traffic, the Bay Bridge will be closed to all traffic.

## East Tie-in Activities Over Labor Day Weekend 2009

Roll out YB4



**Stage 4** — After the bridge is closed, the existing truss will be cut loose at both ends and will be rolled out hydraulically using jacks similar to those used for the Labor Day 2007 move, to push the truss aside.



**Stage 5** — After the existing truss has been rolled out of the way, the new truss will be similarly rolled into place using the same hydraulic jacking system.

Open detour to traffic and demolish YB4



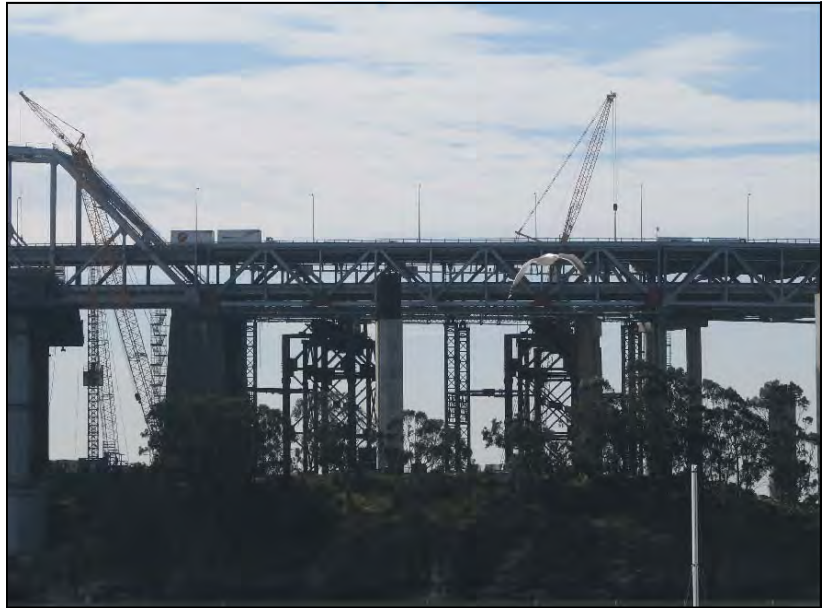
**Stage 6** — After being rolled into place, the new truss will be secured to the detour viaduct and existing bridge and the Bay Bridge will be re-opened to traffic. Removal of the rolled out span will commence soon after the new truss is secured.



## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### San Francisco-Oakland Bay Bridge East Span Replacement Project Yerba Buena Island Transition Structures (YBITS)

The new Yerba Buena Island Transition Structures (YBITS) will connect the new SAS bridge to the existing Yerba Buena Island tunnel, transitioning the new side-by-side roadway decks to the upper and lower decks of the tunnel. The new structures will be cast-in-place reinforced concrete structures that will look very similar to the already constructed Skyway structures. While some YBITS foundations and columns have been advanced by the YBID contract, the remaining work will be completed under three separate YBITS contracts.



YBITS Advanced Foundation and Column Work

#### **B** YBITS #1 Contract

Contractor: TBD

Approved Capital Outlay Budget: \$214.3

M

The YBITS #1 contract will construct the mainline roadway structures from the SAS bridge to the YBI tunnel. Work on the structures is scheduled to start once the existing structures have been demolished and removed from the site.



Simulation of Future Yerba Buena Island Transition Structures (top) with Detour Viaduct (bottom)



## YBITS #2 Contract

Contractor: TBD

Approved Capital Outlay Budget: \$58.5 M

Status: **In Design**

The YBITS #2 contract will demolish the detour viaduct after all traffic is shifted to the new bridge and will construct a new eastbound on-ramp to the bridge in its place. The new ramp will also provide the final link for bicycle/pedestrian access off the SAS bridge onto Yerba Buena Island.

## YBITS Landscaping Contract

Contractor: TBD

Approved Capital Outlay Budget: \$3.3 M

Status: **In Design**

Upon completion of the YBITS work, a follow-on landscaping contract will be executed to re-plant and landscape the area.

### ***Yerba Buena Island Transition Structures Advanced Work***

Due to the re-advertisement of the SAS superstructure contract in 2005, it became necessary to temporarily suspend the detour contract and make design changes to the viaduct. To make more effective use of the extended contract duration and to reduce overall project schedule and construction risks, the TBPOC approved the advancement of foundation and column work from the Yerba Buena Island Transition Structures contract.

**Status:** Advanced foundations and columns for the left piers of W3, W4, and W6 are under construction. Work at pier W5 is pending removal of the existing transition structure. See page 17 for a diagram of pier locations.



YBITS Advanced Foundation and Column Work Just North Of Existing Viaduct (foreground)





## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### San Francisco-Oakland Bay Bridge East Span Replacement Project Self-Anchored Suspension (SAS) Bridge

If one single element bestows the status of world class on the new Bay Bridge East Span, it is the Self-Anchored Suspension (SAS) bridge. This engineering marvel will be the world's largest SAS span at 2,047 feet in length, as well as the first bridge of its kind built with a single tower.

The SAS was separated into three separate contracts – construction of the land-based foundations and columns at Pier W2, construction of the marine-based foundations and columns at Piers T1 and E2, and the construction of the SAS steel superstructure, including the tower, roadway, and cabling. Construction of the foundations at Pier W2 and at Piers T1 and E2 was completed in 2004 and 2007, respectively.

#### SAS Land Foundation Contract

Contractor: West Bay Builders, Inc.

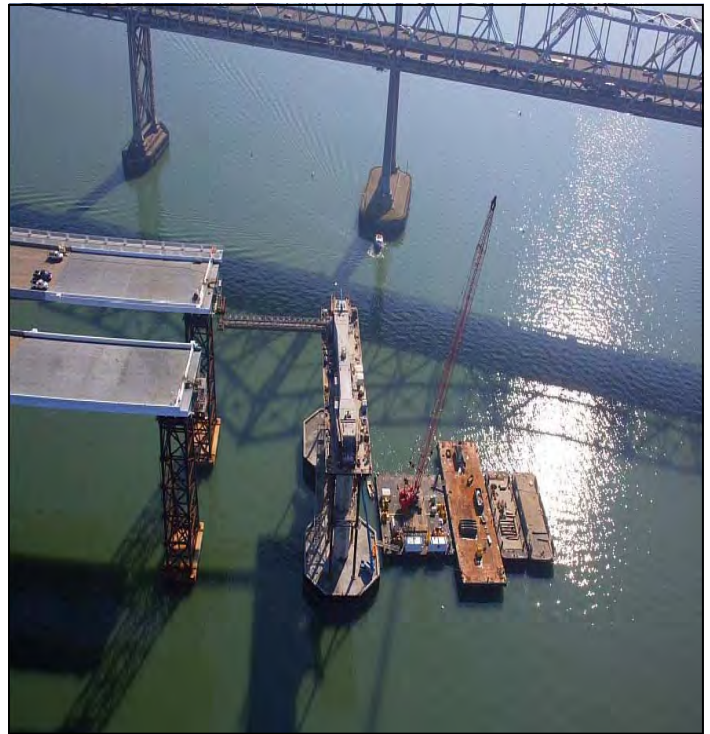
Approved Capital Outlay Budget: \$26.4 M

Status: Completed

The twin W2 columns on Yerba Buena Island provide essential support for the western end of the SAS bridge where the single main cable for the suspension span will extend down from the tower and wrap around and under the western end of the roadway deck. Each of these huge columns required massive amounts of concrete and steel and are anchored 80 feet into the island's solid bedrock.



SAS W2 Cap Beam



Construction of the Pier Table at E2

#### C SAS Marine Foundations Contract

Contractor: Kiewit/FCI/Manson, Joint Venture

Approved Capital Outlay Budget: \$280.9 M

Status: Completed

The single main suspension cable is anchored at Pier E2 and goes up and over the tower at Pier T1 before wrapping around column W2 on Yerba Island before returning to Pier E2 (see rendering on facing page). Construction of the piers at E2 and T1 required significant on-water resources to drive the foundation support piles down not only to bedrock, but also through the bay water and mud.

The T1 foundation piles extend 196 feet below the waterline and are anchored into bedrock with heavily reinforced concrete rock sockets that are drilled into the rock. Driven nearly 340 feet deep, the steel and concrete E2 foundation piles were driven 100 feet deeper than the deepest timber piles of the existing east span in order to get through the bay mud and reach solid bedrock.

## **D** SAS Superstructure Contract

Contractor: American Bridge/Fluor Enterprises, Joint Venture

Approved Capital Outlay Budget: \$1,753.7 M

Status: **38% Complete**

Rising 525 feet above mean sea level and embedded in rock, the single-tower SAS span is designed to withstand a massive earthquake. The SAS bridge is not just another suspension bridge. Traditional main cable suspension bridges have twin cables with smaller suspender cables connected to them. These cables hold up the roadbed and are anchored to separate structures in the ground. While there will appear to be two main cables on the SAS, there will actually only be one. This single cable will be anchored within the eastern end of the roadway, carried over the tower and wrapped around the two side-by-side decks at the western end.

The single steel tower will be made up of four separate legs connected by shear link beams, which function in the same way as a fuse in an electrical circuit. These beams will absorb most of the impact from an earthquake, preventing damage to the tower legs. In addition, if one of the legs is damaged, the other legs will keep the bridge standing.

The next several pages highlight the construction sequence of the SAS and are followed by detailed updates on specific construction activities.



Architectural Rendering of new Self-Anchored Suspension Span





## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### *Self-Anchored Suspension (SAS) Construction Sequence*

#### STEP 1 - CONSTRUCT TEMPORARY SUPPORTS

Temporary support trusses will need to be erected from the Skyway to Yerba Buena Island to support the new SAS bridge during construction.

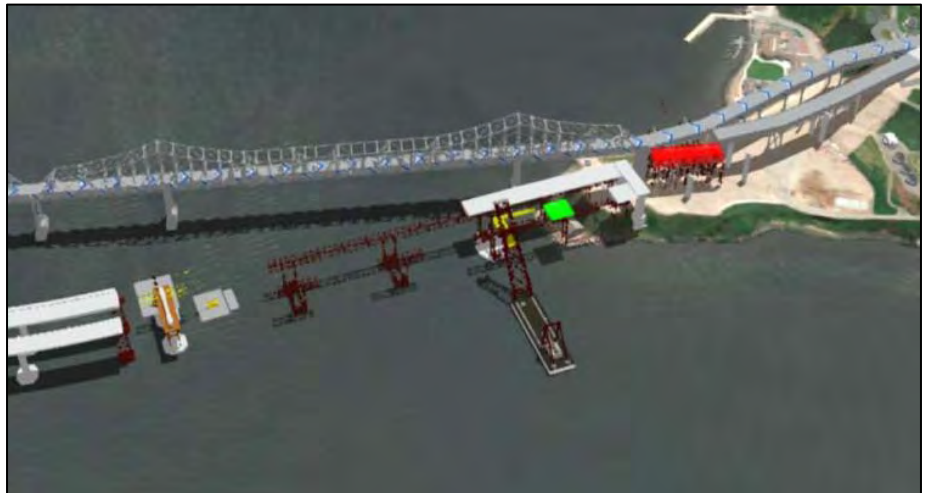
**Status:** Foundations for the temporary supports are under construction. Support columns and trusses are now being installed from west to east.



#### STEP 2 - INSTALL ROADWAYS

The roadway boxes will be lifted into place by using the shear-leg crane barge. The boxes will be bolted and welded together atop the temporary support trusses to form two continuous parallel steel roadway boxes.

**Status:** The first shipment of roadway boxes is scheduled for summer 2009.



#### STEP 3 - INSTALL TOWER

Each of the four legs of the tower will be erected in five separate lifts. The first lift will use the shear-leg crane barge while the remaining higher lifts will use a temporary support tower and lifting jacks.

**Status:** The first shipment of tower boxes is scheduled for late 2009. Tower installation cannot begin until the initial eastbound roadway boxes are installed between the existing east span and new tower.



#### STEP 4 - MAIN CABLE AND SUSPENDER INSTALLATION

The main cable will be pulled from the east end of the SAS bridge, over the tower, and wrapped around the west end before returning back. Suspender cables will be added to lift the roadway decks off the temporary support structure.

**Status:** Cable installation is pending the erection of the tower and roadway sections.



#### STEP 5 - WESTBOUND OPENING

The new bridge will first open in the westbound direction pending completion of the Yerba Buena Island Transition Structures. Westbound access to the Skyway from Oakland will be completed by the Oakland Touchdown #1 Contract in 2009.

**Status:** Westbound opening is scheduled for 2012.



#### STEP 6 - EASTBOUND OPENING

Opening of the bridge in the eastbound direction is pending completion of Oakland Touchdown 2, which needs westbound traffic off the existing bridge before the eastbound approach structure can be completed.

**Status:** Eastbound opening is scheduled for 2013.





## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### ***Self-Anchored Suspension (SAS) Superstructure Fabrication Activities***

Nearly every component of the SAS above the waterline - from the temporary support structures to the roadway and tower box sections to the main cable and suspender ropes - will be fabricated off-site and erected, bolted and welded into place upon arrival in the Bay Area. This project is truly global in nature, with fabrication of the bridge components occurring not only in the United States, but around the world in China, the United Kingdom, Japan, South Korea and other locations.

#### ***Roadway and Tower Segments***

Like giant three-dimensional jigsaw puzzles, the roadway and tower segments of the SAS bridge are hollow steel shells that are internally strengthened and stiffened by a highly engineered network of welded steel ribs and diaphragms. The use of steel in this manner allows for a flexible yet relatively light and strong structure able to withstand the massive loads placed on the bridge during seismic events.

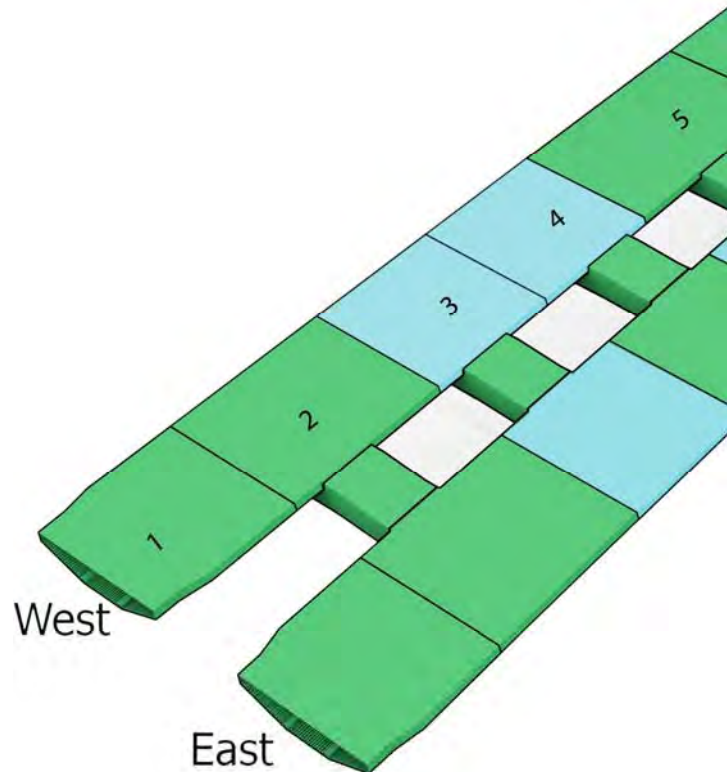
**Status:** Segments are in various stages of fabrication. Roadway sections 3, 4 and 5 east and west have been assembled for paint and fit up, while roadway sections 1, 2, 6, and 7 have started assembly. Individual components for roadway sections 8, 9, and 10 are being fabricated. On the tower sections, assembly of the first of five tower lifts is well underway. The second tower lifts have also started to allow for trial fit-up prior to shipping of the first lift as per specification (see additional progress photos on pages 82 and 83).



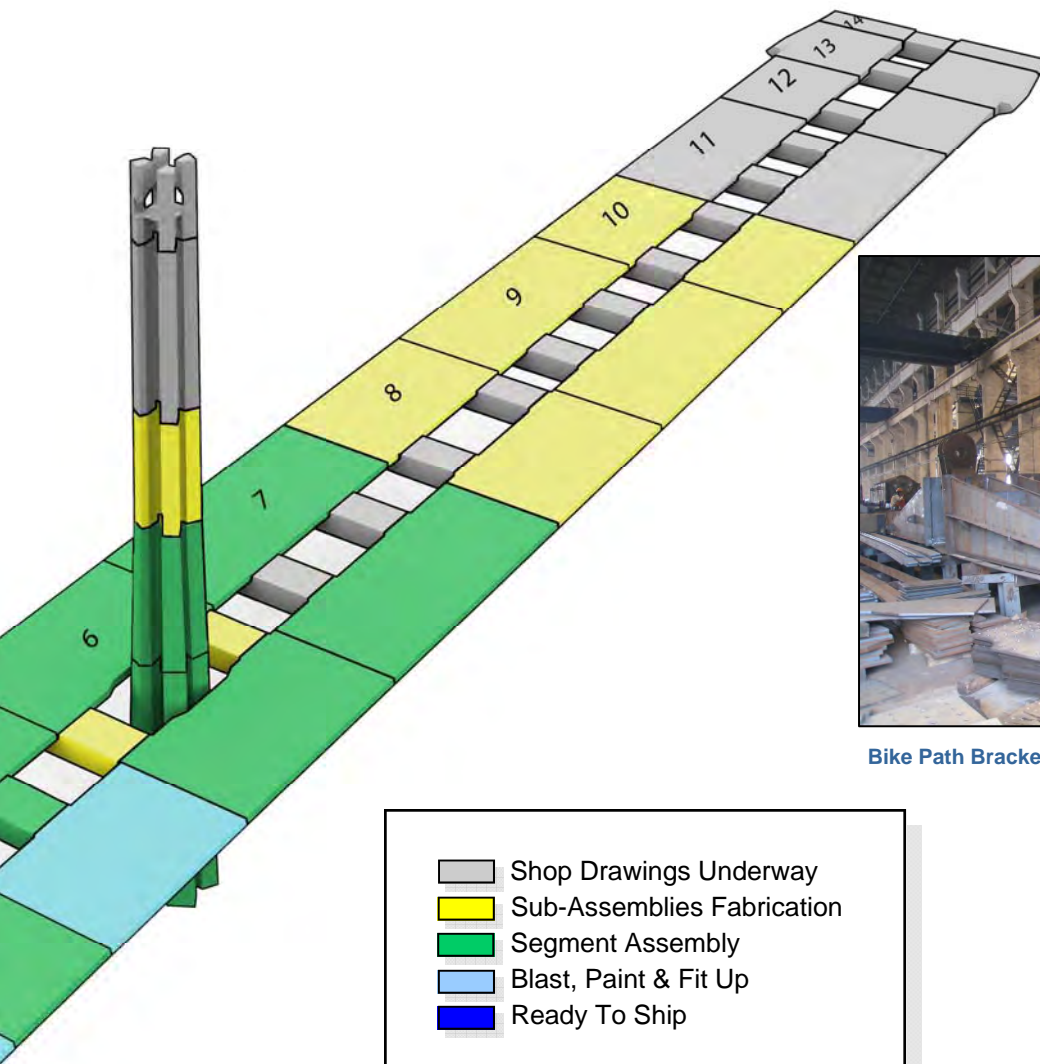
**Painted Roadway Box Section Ready For Fit-up**



**West Shaft, Lift 2 Assembly**



## Fabrication Progress Diagram



Bike Path Bracket Assembly in Bay 5



Tower Production



## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### ***Self-Anchored Suspension (SAS) Superstructure Fabrication Activities***

#### ***Cables and Suspenders***

One continuous main cable will be used to support the roadway deck of the SAS bridge. Anchored into the eastern end of the bridge, the main cable will start on one side of Pier E2, go over the main tower at T1, loop around the western end of the roadway decks at Pier W2, and then back over main tower to the other end of Pier E2. The main cable will be made up of bundles of individual wire strands. Lifting up the roadway decks to the main cable will be a number of smaller suspender cables. The main cable will be fabricated in China and the suspender cables in Missouri.

**Status:** Initial trial testing of the main cable strands is in progress.



**Trial Cable Band Assembly**



**Bronze Spherical Bushing for E2 Bearings**

#### ***Saddles, Bearings, Hinges, and Other Bridge Components***

The mounts on which the main cable and suspender ropes will sit are made from solid steel castings. Castings for the main cable saddles are being made by Japan Steel Works, while the cable bands and brackets are being made by Goodwin Steel in the United Kingdom.

The bridge bearings and hinges that support, connect, and transfer service loads from the SAS bridge to the adjoining sections of the new east span are being fabricated in a number of locations. Work on the bearings is being performed in Pennsylvania and South Korea, while hinge pipe beams are being fabricated in Oregon.

**Status:** Under Fabrication.

## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### *Self-Anchored Suspension (SAS) Superstructure Field Activities*



Ship Carrying the Shear-leg Crane Barge Crossing beneath the West Span of the Bay Bridge

#### **Shear-leg Crane Barge**

The massive shear-leg crane barge that will help build the SAS superstructure arrived in the San Francisco Bay on March 12, 2009 after a trans-pacific voyage.

The crane and barge are separate units operating as a single entity dubbed the “Left Coast Lifter”. The 400 by 100-foot barge is a U.S. flagged vessel that was custom built in Portland, Oregon by U.S. Barge, LLC and outfitted with the crane by Shanghai Zhenhua Port Machinery Co. Ltd. (ZPMC) at a facility near Shanghai, China. The crane’s boom weighs 992 tons and is 328 feet long. The crane can lift up to 1,873 tons, including the deck and tower sections for the SAS, which will begin arriving this summer.

The crane will offload and erect the remaining steel for the temporary support structures, as well as all of the deck and tower segments. Work on the eastbound side of the SAS must occur first, as the crane cannot reach over permanent westbound decks to work on the eastbound roadway.

**Status:** On location.

#### **Cap Beams**

Construction of the massive steel-reinforced concrete cap beams that link the columns at piers W2 and E2 was left to the SAS superstructure contractor and represents the only concrete portions of work on that contract. The east and west ends of the SAS roadway will rest on the cap beams and the main cable will wrap around and tie down upon them.

**Status:** Completed.



Nearly Completed Cross Beam at Pier E2

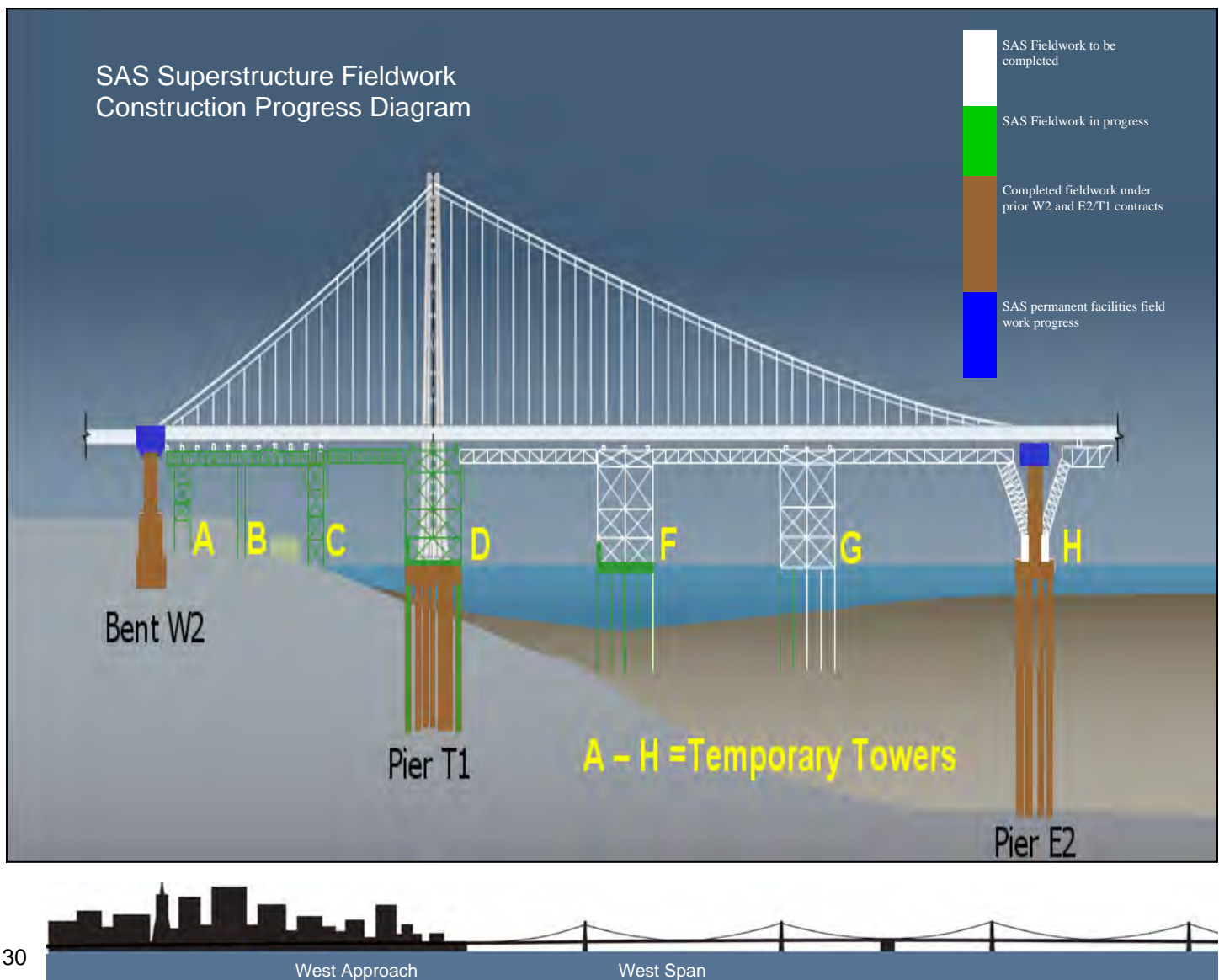
## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### ***Self-Anchored Suspension (SAS) Superstructure Field Activities***

#### ***Temporary Support Structures***

To erect the roadway and tower of the bridge, temporary support structures will first be put in place. Almost a bridge in itself, the temporary support structures will stretch from the end of the completed skyway back to Yerba Buena Island. For the tower, a strand jack system is being built into the tower's temporary frame to elevate the upper sections of the tower into place. These temporary supports are being fabricated in the Bay Area, as well as in Oregon and in China at ZPMC.

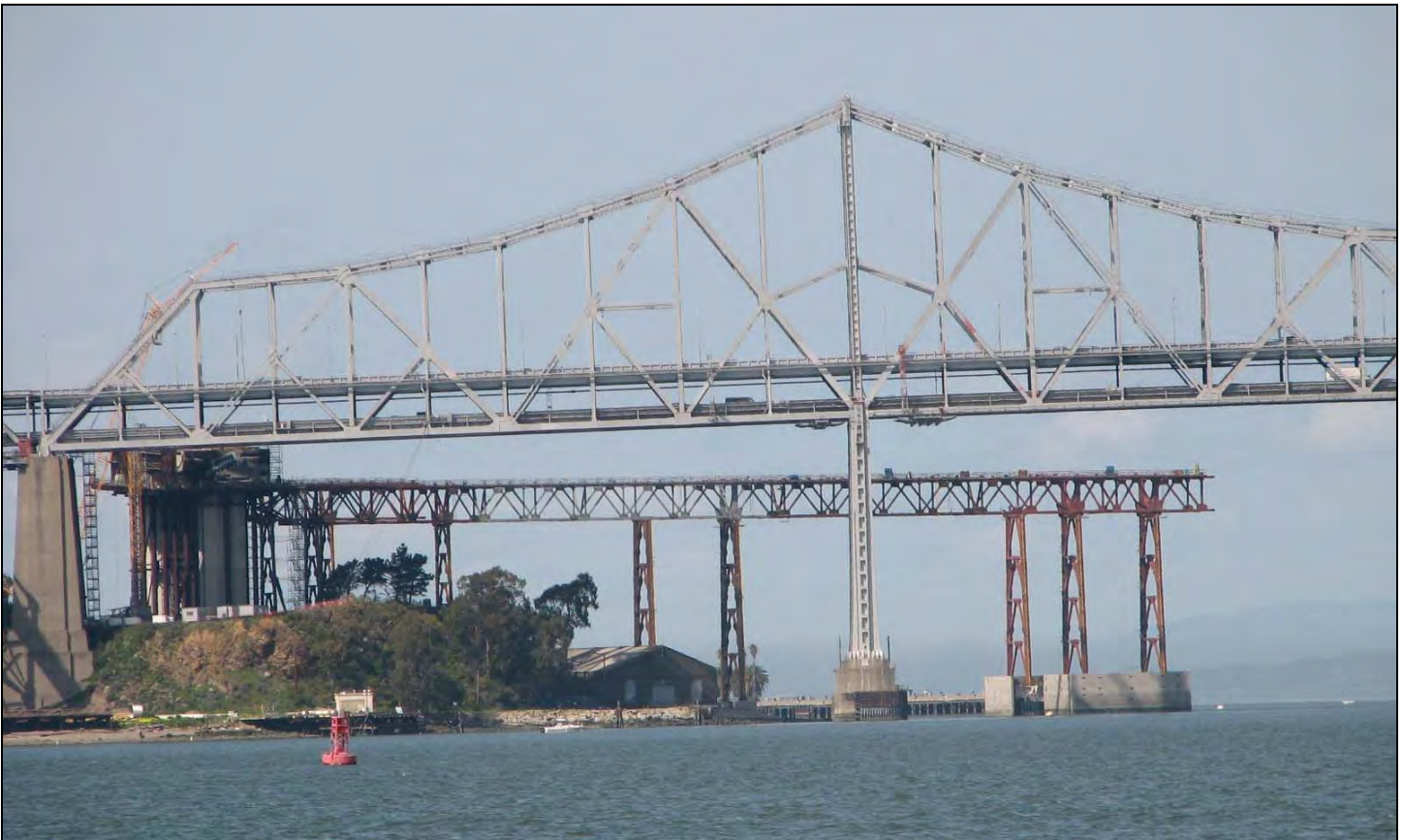
**Status:** The secondary channel between Yerba Buena Island and Oakland has been closed to shipping traffic. The temporary support foundations are under construction and erection of completed trusses is ongoing from west to east. Later remaining trusses are still being fabricated.







Overview of the Bay Bridge Looking towards Yerba Buena Island Downtown San Francisco



Temporary Support Structures Erected Behind Existing East Span



## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### San Francisco-Oakland Bay Bridge East Span Replacement Project Skyway

The Skyway, which comprises much of the new East Span, will drastically change the appearance of the Bay Bridge. Replacing the grey steel that currently cages drivers, a graceful, elevated roadway supported by piers will provide sweeping views of the bay.

#### **E Skyway Contract**

**Contractor:** Kiewit/FCI/Manson Joint Venture

**Approved Capital Outlay Budget:** \$1,254.1 M

**Status:** Completed

Extending for more than a mile across Oakland mudflats, the Skyway is the longest section of the East Span. It sits between the new Self-Anchored Suspension (SAS) span and the Oakland Touchdown. In addition to incorporating the latest seismic-safety technology, the side-by-side roadway decks of the Skyway feature shoulders and lane widths built to modern standards.

The Skyway's decks are composed of 452 pre-cast concrete segments (standing three stories high), and contain approximately 200 million pounds of structural steel, 120 million pounds of reinforcing steel, 200 thousand linear feet of piling and about 450 thousand cubic yards of concrete. These are the largest segments of their kind ever cast and were lifted into place by winches that were custom made for this project.

The Skyway marine foundation consists of 160 hollow steel pipe piles measuring eight feet in diameter and dispersed among 14 sets of piers. The 365-ton piles were driven more than 300 feet into the deep bay mud. The new East Span piles were battered or driven in at an angle, rather than vertically, to obtain maximum strength and resistance.

Designed specifically to move during a major earthquake, the Skyway features several state-of-the-art seismic safety innovations, including 60-foot-long hinge pipe beams. These beams will allow deck segments on the Skyway to move, enabling the deck to withstand greater motion and to absorb more earthquake energy.



Completed Skyway Left of Existing East Span



Western End of Completed Skyway



Rendering of the Western End of Completed Skyway and the Self-Anchored Suspension Bridge

## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### San Francisco-Oakland Bay Bridge East Span Replacement Project Oakland Touchdown

When completed, the Oakland Touchdown (OTD) structures will connect Interstate 80 in Oakland to the new side-by-side decks of the new East Span. For westbound drivers, the OTD will be their introduction to the graceful new East Span. For eastbound drivers from San Francisco, this section of the bridge will carry them from the Skyway to the East Bay offering unobstructed views of the Oakland hills.

The OTD will be constructed through two contracts. The first contract will build the new westbound lanes, as well as part of the eastbound lanes. The second contract to complete the eastbound lanes cannot fully begin until westbound traffic is shifted onto the new bridge so that a portion of the upper deck of the existing bridge can be demolished to allow for a smooth transition for the new eastbound lanes in



Oakland Touchdown #1 Pier Construction

#### **F** Oakland Touchdown #1 Contract

Contractor: MCM Construction, Inc.

Approved Capital Outlay Budget: \$226.5 M

Status: 67% Complete

The OTD #1 contract constructs the entire 1,000-foot-long westbound approach from the toll plaza to the Skyway. When completed, the westbound approach structure will provide direct access to the westbound Skyway. In the eastbound direction, the contract will construct a portion of the eastbound structure and all of the eastbound foundations that are not in conflict with the existing bridge.

On the westbound structure, the contractor has completed all foundation work and is now proceeding with superstructure work. Work continues on the eastbound structure's foundations and columns. The approach is going full steam ahead and is visible to the drivers.

#### **G** Oakland Touchdown #2 Contract

Contractor: TBD

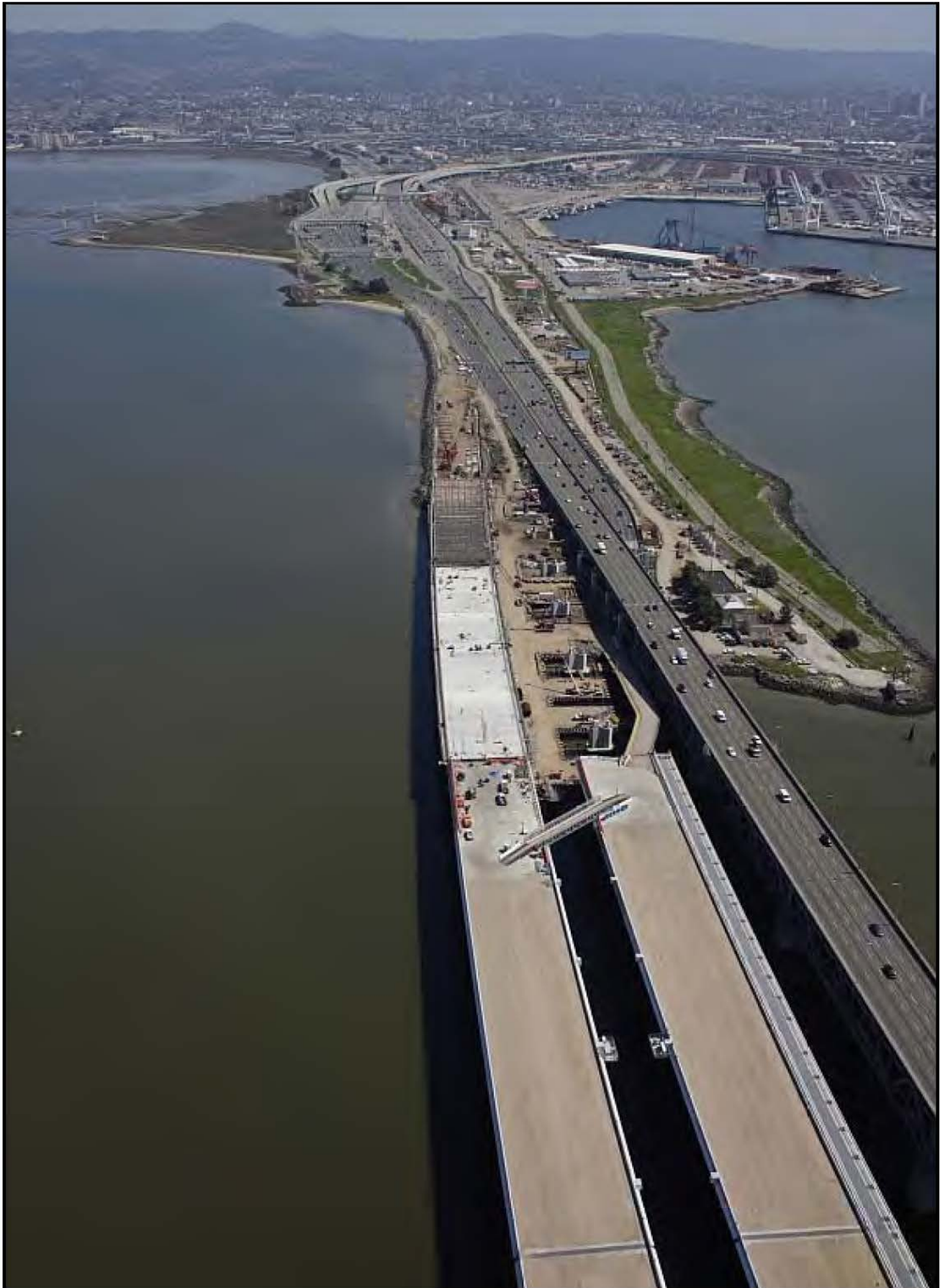
Approved Capital Outlay Budget: \$62.0 M

Status: In design

The OTD #2 contract will complete the eastbound approach structure from the end of the Skyway to Oakland. This work is critical to the eastbound opening of the new bridge, but cannot be completed until westbound traffic has been shifted off the existing upper deck to the new SAS bridge.







Oakland Touchdown under Construction with New Westbound Structure on Left

## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### San Francisco-Oakland Bay Bridge East Span Replacement Project Other Contracts

A number of contracts needed to relocate utilities, clear areas of archeological artifacts, and prepare areas for future work have already been completed. The last major contract will be the eventual demolition and removal of the existing bridge, which by that time will have served the Bay Area for nearly 80 years. Following is a status of some the other East Span contracts.

#### East Span Interim Seismic Retrofit

Contractors: 1) California Engineering Contractors  
2) Balfour Beatty  
Approved Capital Outlay Budget: \$30.8 M  
Status: Completed

After the 1989 Loma Prieta earthquake, and before the final retrofit strategy was determined for the East Span, Caltrans completed an interim retrofit of the existing bridge to prevent a catastrophic collapse of the bridge should a similar earthquake occur before the East Span is completely replaced. The interim retrofit was performed under two separate contracts that lengthened pier seats, added some structural members, and strengthened areas of the bridge so that they would be more resilient during an earthquake.



Archeological Investigations



Existing East Span of Bay Bridge

#### Stormwater Treatment Measures

Contractor: Diablo Construction, Inc.  
Approved Capital Outlay Budget: \$18.3 M  
Status: Completed

The Stormwater Treatment Measures contract implemented a number of best practices for the management and treatment of storm water runoff. Focused on the areas around and approaching the toll plaza, the contract added new drainage and built new bio-retention swales and other related constructs.



Storm Water Retention Basin





## Yerba Buena Island Substation

Contractor: West Bay Builders

Approved Capital Outlay Budget: \$11.6 M

Status: Completed

This contract relocated an electrical substation just east of the Yerba Buena Island tunnel in preparation for the new East Span.



New YBI Electrical Substation

## Pile Installation Demonstration

Contractor: Manson and Dutra, Joint Venture

Approved Capital Outlay Budget: \$9.2 M

Status: Completed

While common in offshore drilling, the new East Span is one of the first bridges to use large diameter battered piles in its foundations. To minimize project risks and build industry knowledge, a pile installation demonstration project was initiated to prove the efficacy of the proposed technology and methodology. The demonstration was highly successful and helped result in zero contract change orders or claims for pile driving on the project.

## I Electrical Cable Relocation

Contractor: Manson Construction

Approved Capital Outlay Budget: \$9.6 M

Status: Completed

A submerged cable from Oakland that is close to where the new bridge will touch down, supplies electrical power to Treasure Island. To avoid any possible damage to the cable during construction, two new cables were run from Oakland to Treasure Island to replace the existing cable. The extra cable was funded by the Treasure Island Development Authority and its future development plans.

## H Existing Bridge Demolition

Contractor: TBD

Approved Capital Outlay Budget: \$239.2 M

Status: In Design

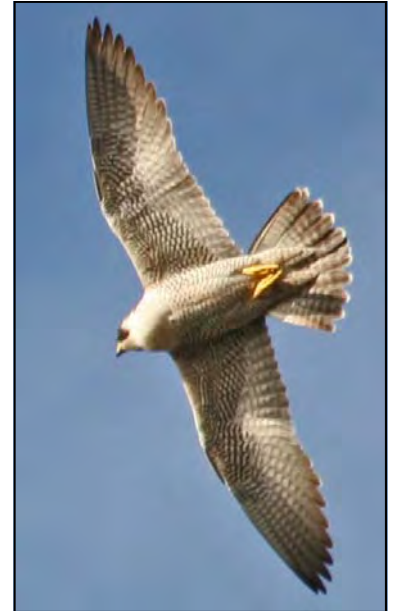
Design work on the contract will start in earnest as opening of the new bridge to traffic approaches.



## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### Quarterly Environmental Compliance Highlights

Overall environmental compliance for the SFOBB East Span project has been a success. All weekly, monthly and annual compliance reports to resource agencies have been delivered on time. There are no comments from receiving agencies. The tasks for the current quarters are focused on mitigation monitoring. Key successes in this quarter are as follows:

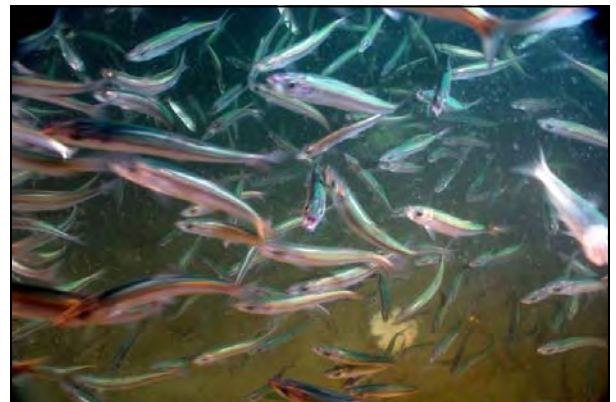


The Endangered Peregrine Falcon

- Bird monitoring was conducted weekly in the active construction area. Monitors did not observe any indication that birds were disturbed due to East Span construction activities.
- Peregrine falcon monitoring was conducted weekly throughout January and February 2009. During monitoring in February a pair of peregrine falcons was observed in copulation. The observations suggest that the East Span Bay Bridge peregrine falcon territory is occupied and a breeding attempt is underway. In response to these observations peregrine falcon monitoring was conducted twice to three times a week throughout March 2009.
- Marine mammal, hydro-acoustic and bird predation monitoring was conducted during the driving of marine based piles at SAS Temporary Towers F and G.
- Caltrans met with the San Francisco Bay Conservation and Development Commission (BCDC) and National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA-Fisheries) to discuss the Central Bay Eelgrass and Sand Flat Mitigation Program.
- BCDC Permit No. 8-01, Amendment No. 24, for the construction of a temporary wildlife exclusion fence, to minimize the potential entrance of Canadian geese on to I-80 roadway adjacent to the Emeryville Crescent Marsh was issued on January 14, 2009.
- Caltrans performed herring monitoring during marine-based East Span construction activities. In addition, Caltrans received weekly herring spawning updates from and California Department of Fish and Game (CDFG). Herring spawning season ended March 31<sup>st</sup>, and a 2008-2009 SFOBB East Span herring monitoring report is being prepared for submittal to CDFG.



Canadian Geese



Herring Monitoring

## San Francisco-Oakland Bay Bridge West Approach Replacement Project

### Project Status: Completed 2009

Seismic safety retrofit work on the West Approach, bordered by 5th Street and the Anchorage at Beale Street, involved completely removing and replacing this one-mile stretch of Interstate 80 and six on and off-ramps in its original footprint. At least 280,000 vehicles passed by daily in the midst of this essential construction.

The West Approach originally had one foundation system supporting both an upper and lower deck configuration from 3rd Street to Beale Street. Each deck now has its own independent column and foundation support system, a crucial aspect of making the West Approach seismically sound. The roadways between 3rd and 5th Streets are parallel concrete decks that transition into the double-deck configuration as drivers approach the West Span of the Bay Bridge.



Recently Reopened Harrison Street Off-ramp.

## West Approach Seismic Replacement Contract

Contractor: Tutor-Saliba, Joint Venture

Approved Capital Outlay Budget: \$350.7 M

Status: 98% Complete

To minimize disruptions to the neighborhood and to keep the bridge's traffic moving, the project was performed in a series of six elaborate stages, including a series of lane shifts, regular lane and ramp closures, and one partial bridge closure. Each of the six stages of retrofit work follows a carefully staged formula to meet seismic safety standards. A temporary structure is built and vehicles are rerouted to it. The old structure is then demolished and work begins on the new structure in the original footprint. Drivers are then rerouted back onto the completed replacement structure and the temporary structure is demolished.

Work on the 72-year-old structure began in 2003 and seismic safety was certified in 2008. Final punchlist work was completed in early 2009.



Workers Constructing Infill Wall beneath West Approach



## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### Other Completed Projects

The State Legislature in the 1990s identified seven of the nine state-owned toll bridges for seismic retrofit. In addition to the San Francisco-Oakland Bay Bridge, these included the Benicia-Martinez, Carquinez, Richmond-San Rafael and San Mateo-Hayward bridges in the Bay Area, and the Vincent Thomas and Coronado bridges in Southern California. Other than the East Span of the Bay Bridge, the retrofits of the all bridges have been completed as planned.

### San Mateo-Hayward Bridge Seismic Retrofit Project

#### Project Status: Completed 2000

The San Mateo-Hayward Bridge seismic retrofit project focused on the strengthening of the high-rise portion of the span. The foundations of the bridge were significantly upgraded with additional piles.



High-Rise Section of San Mateo-Hayward Bridge

### 1958 Carquinez Bridge Seismic Retrofit Project

#### Project Status: Completed 2002

The eastbound 1958 Carquinez Bridge was retrofit in 2002 with additional reinforcement of the cantilever thru-truss structure.



1958 Carquinez Bridge (foreground) with the 1927 Span (middle) under Demolition and the New Alfred Zampa Memorial Bridge (background)

## 1962 Benicia-Martinez Bridge Seismic Retrofit Project

**Project Status: Completed 2003**

The southbound 1962 Benicia-Martinez Bridge was retrofitted to “Lifeline” status with the strengthening of the foundations and columns and the addition of seismic bearings that allow the bridge to move during a major seismic event. The Lifeline status means the bridge is designed to sustain minor to moderate damage after an event and to reopen quickly to emergency response traffic.



1962 Benicia Martinez Bridge (right)

## Richmond-San Rafael Bridge Seismic Retrofit Project

**Project Status: Completed 2005**

The Richmond-San Rafael Bridge was retrofitted to a “No Collapse” classification to avoid catastrophic failure during a major seismic event. The foundations, columns, and truss of the bridge were strengthened, and the entire low-rise approach viaduct from Marin county was replaced.



Richmond-San Rafael Bridge



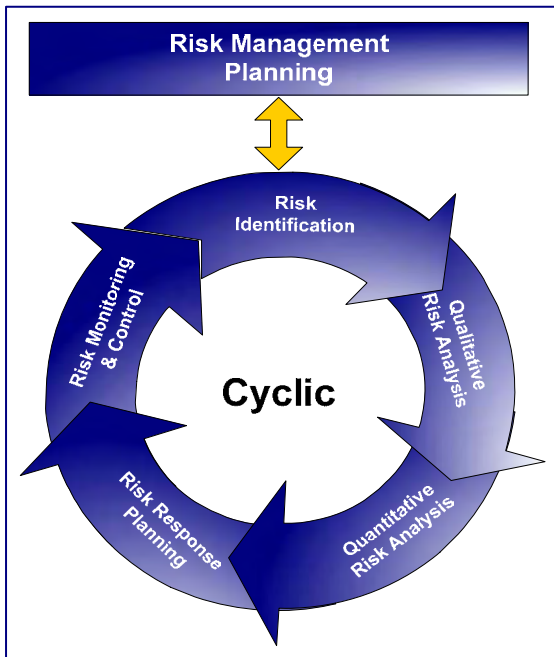
## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### Risk Management Program Update

Assembly Bill (AB) 144 states that Caltrans must “regularly reassess its reserves for potential claims and unknown risks, incorporating information related to risks identified and quantified through its risk assessment processes.” AB 144 set a \$900 million Program Reserve (also referred to as the Program Contingency). The Program Contingency is currently at \$740.3 million according to the TBPOC Approved Budget, unchanged from the previous quarter.

### The Risk Management Process

Caltrans’ approved risk management plan provides for a systemic and continuous process of identifying, analyzing, and responding to project and program risks. Risk management plan implementation provides for maximizing the probability and consequences of positive events and minimizing the probability and consequences of adverse events to project objectives (e.g., cost, schedule and quality).



**Figure 1 – The Risk Management Process**

Each element of the risk management process is shown in the Figure 1, above, and explained below. The risk management cyclic process is performed on a quarterly basis and encompasses all identified risks related to the contracts, program, corridor, capital outlay, capital outlay support, and schedule.

1. Risk Management Planning – deciding how to approach, plan and execute the risk management activities for the project.

2. Risk Identification – determining which risks might affect the project and documenting their characteristics.
3. Qualitative Risk Analysis – prioritizing risks for subsequent further analysis or action by assessing and combining their probability and impacts.
4. Quantitative Risk Analysis – analyzing numerically the effect of identified risks on overall project objectives.
5. Risk Response Planning – developing options and actions to enhance opportunities and to reduce impact to project objectives.
6. Risk Monitoring and Control – tracking identified risks, monitoring residual risks, identifying new risks, executing risk response plans, and evaluating their effectiveness throughout the project life cycle.

Although the risk management processes above are presented as discreet elements with well-defined interfaces, in practice they often overlap and interact with each other.

### What Risk Management Does and Does Not Include

Risk management addresses risks that may affect its defined project objectives such as cost, time, scope and quality. Given a project plan, risk management generally looks at ways in which the project may not go according to plan. Risk management focuses on the defined project scope and objectives, and therefore does not include 1) risks or possible decisions that may “kill” the project -- if the project ceases to exist, there are no risks to manage. For example, risk management does not include risks such as the loss of funding, natural disaster that destroys all or part of the construction or acts of governments, and 2) risks or possible decisions that may materially change the project -- if the project objectives are changed substantially, risk management will start afresh on the “new” project. For example, the YBI Detour contract was materially changed by the addition several YBITS1 project foundations by contract change order as well as certain design enhancements that were made to the east and west “tie-ins” of the YBI Detour structure. The risks of such decisions were not in the risk register of the original contract. In a nutshell, risk management is confined to quantifying risks that are intended to be covered by project and program contingency.

### About “Risk” and “Opportunity”

The concept of risk can include both upside as well as downside impacts. This means that the word “risk” can be used to describe uncertainties, which if they occurred, would have a negative or harmful effect, and the same word can also describe uncertainties, which if they occurred, would be helpful. In short, there are two sides to risk -- threats and opportunities. A risk that has no threat is a “pure

opportunity.” It is simply an unplanned good thing which might happen. For example, a new design method might be released, which we can apply to benefit our project. Opportunity is the inverse of threat if a risk has both threat and opportunity. Where a risk variable exists on a continuous scale and there is uncertainty over the eventual outcome, instead of just defining the risk as the downside it might also be possible to consider upside potential. For example, if we have included escalation at 5 percent in our budget for future contracts and this rate could range from say 3 to 7 percent depending on economic conditions at the time of advertisement, we have an opportunity in the 3 to 5 percent range and a threat in the 5 to 7 percent range. Opportunity and threat exist in the one risk. If the budget were based on 7 percent escalation we would have only opportunity. If based on 3 percent we would have only threat. Threat and opportunity can also depend on how we define the risk. For example, if the risk is that an external agency may relax its requirements and this saves us money relative to what we have budgeted currently in our plan, this is an opportunity. If the risk is defined as the agency may tighten its requirements and this adds to our costs, this is a threat. We can only separate the opportunity and threat if we are certain that the agency may act only one way and not the other. If the risk is that the agency may change its requirements, we could have impacts that range from positive to negative. We would have both opportunity and threat in the same risk, and the degree of each would depend on what we have budgeted in our plan. Uncertainty in the cost of major contract change orders is another example of opportunity. If we enter an estimate into the change order log and the final outcome could range from less than the estimate to more than the estimate, we have both an opportunity and a threat. The degree of opportunity and threat depends on where the estimate lies within the range.

### **Risk Management for Projects in Design and Construction**

Projects in design have the greatest potential for opportunities, because the project is still open to changes. Risk reduction and avoidance are opportunities, as are value analysis, constructability reviews and innovations in design, construction methods and materials. Once a project enters construction, the project objectives (scope, time and cost) are fixed contractually. Any changes are made using a contract change order. The only opportunity to save money or time is from a negative change order such as resulting from a cost reduction incentive proposal by the Contractor. Otherwise, change orders add cost and/or time to the project. So, the prime opportunity during construction is to reduce or eliminate risks.

## **RISK MANAGEMENT DEVELOPMENTS IN THE 4<sup>TH</sup> QUARTER OF 2008**

The approved risk management plan provides for reporting quantitative cost risk results and other risk management information from the previous quarter. Described below are the main risk management developments and updated quantitative cost risk results for the 4<sup>th</sup> Quarter of 2008.

### **SAS Contract**

Some of the main risk management developments on the SAS contract during the 4<sup>th</sup> Quarter of 2008 are:

- a. “Green Tag” Process: This enhanced quality control and quality assurance process continues to prove successful in documenting quality welds and mitigating schedule and cost risks. The green tag process has resulted in enhanced coordination of quality control and assurance earlier in the fabrication process.
- b. Welding Acceptance Criteria: A contract change order providing revised acceptance criteria for welding was submitted to the Contractor. This change order mitigates schedule and cost risk by clearly providing a baseline for welding quality control, quality assurance, and acceptance criteria, while taking into account the Contractor’s means and methods.
- c. Orthotropic Box Girder (OBG) Tack Weld Issue: The proposed technical resolution of this issue was presented to the Seismic Peer Review Team (SPRT). The SPRT concurred with the proposed technical resolution and it is currently being implemented. This solution provides an exhaustive fit for purpose design assessment and greatly mitigates cost and schedule risk.
- d. Administrative Resolution of Prior Fabrication Issues: Preliminary discussions have been held with the Contractor in an attempt to address the administrative resolution of fabrication issues to date. Discussions will continue in the 1<sup>st</sup> Quarter of 2009. Talks will focus on the administrative resolution of several contract change orders related to fabrication. Resolution of such administrative issues at the earliest possible time will mitigate cost risk.
- e. Cable Issues: The Cable Engineering Risk Management (CERM) team continues to engage international experts to help resolve the complex cable engineering and geometry issues. The SAS main cable geometry depends on the weight of the OBG and the suspender loads. The CERM team has recommended that additional cables bands and cable brackets be procured to cover all potential geometry variations that may occur where the cable interacts with the deck.

## TOLL BRIDGE SEISMIC RETROFIT PROGRAM

### Risk Management Program Update (cont.)

Team China will be measuring as-fabricated thicknesses of structural steel to validate theoretical models. The CERM team is also looking at and resolving potential spatial conflicts and issues related to cable rotation during installation of the cable bands and suspenders.

#### **Corridor Schedule**

During the 4<sup>th</sup> Quarter of 2008, the SAS Contractor estimated that various OBG and tower fabrication operations were potentially 13 months behind the Contractor's original schedule and indicated that about six months could conceivably be recovered. Caltrans and the SAS Contractor initiated a joint effort to review the schedule and develop mitigating actions. The parties addressed in principal approximately six months of the potential 13 month period. The Contractor will engage its fabricator and provide incentives and disincentives for new delivery dates. It is anticipated that the fabricator will utilize additional shop space at their facility to advance this work. Caltrans and the Contractor (and its fabricator) will continue to negotiate with the anticipation of a contract change order being issued prior to the end of the 1<sup>st</sup> Quarter of 2009. This is a preliminary step in an attempt to recover schedule and maintain previous commitments to bridge opening dates. The TBPOC and the SAS Contractor's management team requested that an effort be made to jointly develop a proposed accelerated schedule (Opportunity Schedule). The opportunity schedule will be a joint effort that will include teams comprised of members of the Department, the Contractor, designer, and other stakeholders. The kick off meeting is anticipated in early January. Joint Caltrans and Contractor teams are being established to investigate potential mitigating actions for fabrication, steel erection, cable installation and mechanical/electrical/piping phases of the project.

#### **YBI Detour Contract**

Some of the main risk management developments in the 4<sup>th</sup> Quarter of 2008 on the YBI Detour contract are:

- a. East Tie-In: Collaborative on-site meetings at the different fabrication facilities between the Caltrans construction team, design team, and the Contractor have resolved many issues that might have caused significant delay in the traffic switch schedule.
- b. West Tie-In: The design team's concrete specialist continues developing high performance concrete to accelerate the closure pour which will help ensure that the Bay Bridge can be returned to service as soon as possible during the traffic switch weekend.
- c. Demolition: The project team continues to assess a new strategy to allow demolition work to proceed on all spans

after the traffic switch instead of demolishing the bridge one span at a time. The new approach helps protect the access road to the Coast Guard Station while the demolition work is in progress. The project team is also reassessing the cost/benefits to determine if added value could be realized by bidding this work on the YBITS1 project.

#### **Oakland Touchdown Westbound (OTD1) Contract**

Some of the main risk management developments on the OTD1 contract during the 4<sup>th</sup> Quarter of 2008 are:

- a. In order to mitigate corridor schedule and cost risks, the decision was made to implement OTD 1 mechanical-electrical-plumbing work on the SAS contract by contract change order.
- b. Notice of Potential Claim No. 8 for Integrated Shop Drawings (ISDs) impacts, has been resolved to the satisfaction of all parties.
- c. The Department and the Contractor are working closely to resolve any remaining structural and mechanical/electrical conflicts at highly congested areas, to complete the ISDs.

#### **YBI Transition Structure (YBITS1) Contract**

Some of the main risk management developments on the YBITS1 contract during the 4<sup>th</sup> Quarter of 2008 are:

- a. The contract bid opening date has been changed to July 14, 2008, to more closely match the adjacent contracts' schedules. This will optimize the YBITS1 work schedule and minimize schedule and cost risk both to the YBITS1 contract and the corridor.
- b. Based on the Skyway and OTD1 risk identification and response, options to begin ISDs during design are being evaluated.
- c. The contract specifications team is working on the location and specifications of the "Working Drawing Campus," to be issued by addendum. This specification provides for the collocation of Contractor and designer forces in the resolution of working drawing issues and will mitigate cost and schedule risk.

#### **West Approach Contract**

Some of the main risk management developments on the West Approach project during the 4<sup>th</sup> quarter 2008 are:

- a. Caltrans and the Contractor have resolved all time related costs through contract completion. Continued resolution efforts are underway related to contractor controlled insurance program costs for the added

change order work. Resolution is expected the 1st Quarter of 2009.

- b. Community liaisons are working proactively with neighbors to help prevent damage claims from being brought against the project.
- c. Weekly meetings of project, City of San Francisco, and the Contractor staff have been ongoing to insure that all stakeholders can be satisfied with the project when it is accepted in the Spring of 2009.

## ADEQUACY OF PROGRAM RESERVE

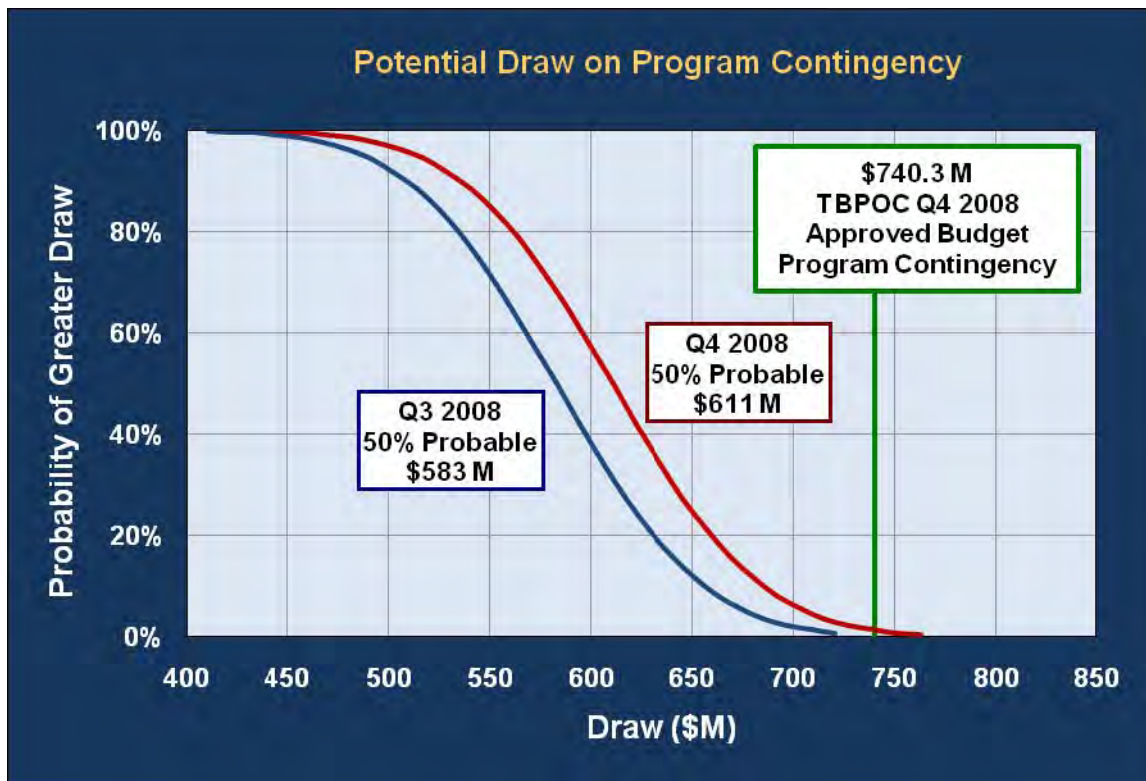
### (PROGRAM CONTINGENCY)

#### Potential Draw on Program Contingency

Each contract in design has an assigned contingency allowance. A contract in construction has a remaining contingency, which is the difference between its budget and the sum of bid items, state furnished materials, contract

change orders and remaining supplemental work. Capital outlay support has no identified contingency allowance. The total of the contingencies is the amount that is available to cover the risks of all contracts, program risks, and capital outlay support risks. The amount by which the sum of all risks exceeds the total of all contingencies represents a potential draw on the Program Contingency (Reserve).

As of the end of the fourth quarter of 2008, the 50 percent probable draw on Program Contingency is \$611 million, an increase of \$27 million over the previous quarter, as shown in Figure 2 below. This increase was primarily driven by accelerated YBI Detour work to achieve traffic switch on Labor Day weekend of 2009 and project completion in April of 2010. The potential draw ranges from about \$450 million to \$750 million. The Program Contingency is sufficient to cover identified risks but there is a small probability that the potential draw could exceed the Program Contingency balance. Ongoing risk mitigation actions are being continuously developed and implemented to reduce the potential draw on the Program Contingency.



**FIGURE 2 – POTENTIAL DRAW ON PROGRAM CONTINGENCY**

The curve in Figure 2 can be used to directly read off the probability of exceeding any value of cost. For example, there is about an 80 percent chance that the potential draw on Program Contingency (Reserve) will exceed \$560 million while there is only about a 20 percent chance that it will exceed \$660 million. Note that although the curve appears to reach a zero probability of overrun at about \$750M, there is still less than a 1% chance of some cost greater than \$750M. Note that the curve does not include risks or possible decisions that may materially change or "kill" the project. The \$740.3 million TBPOC 4<sup>th</sup> Quarter of 2008 Approved Budget Program Contingency is sufficient to cover identified risks. Ongoing risk mitigation actions will continue to be developed and implemented to reduce the potential draw on Program Contingency.



## PROGRAM FUNDING STATUS

AB 144 established a funding level of \$8.685 billion for the TBSRP. The bill specifies program funding sources, as shown in *Table 5-Program Budget*.

**Table 5-Program Budget  
as of December 31, 2008 (\$ Millions)**

	<b>Budgeted</b>	<b>Funding Available &amp; Contributions</b>
<b>Financing</b>		
Seismic Surcharge Revenue AB 1171	2,282.0	2,282.0
Seismic Surcharge Revenue AB 144	2,150.0	2,150.0
BATA Consolidation	820.0	820.0
<b>Subtotal - Financing</b>	<b>5,252.0</b>	<b>5,252.0</b>
<b>Contributions</b>		
Proposition 192	790.0	789.0
San Diego Coronado Toll Bridge Revenue Fund	33.0	33.0
Vincent Thomas Bridge	15.0	6.9
State Highway Account <sup>(1)(2)</sup>	745.0	745.0
Public Transportation Account <sup>(1)(3)</sup>	130.0	130.0
ITIP/SHOPP/Federal Contingency	448.0	-
Federal Highway Bridge Replacement and Rehabilitation (HBRR)	642.0	642.0
SHA - East Span Demolition	300.0	
SHA - "Efficiency Savings" <sup>(4)</sup>	130.0	10.0
Redirect Spillover	125.0	125.0
Motor Vehicle Account	75.0	75.0
<b>Subtotal - Contributions</b>	<b>3,433.0</b>	<b>2,555.9</b>
<b>Total Funding</b>	<b>8,685.0</b>	<b>7,807.9</b>
<b>Allocated to date</b>		<b>7,002.6</b>
<b>Remaining Unallocated</b>		<b>805.3</b>
<p><sup>(1)</sup> The California Transportation Commission adopted a new schedule and changed the PTA/SHA split on December 15, 2005.</p> <p><sup>(2)</sup> To date, \$645 million has been transferred from the SHA to the TBSRP, including the full \$290 million transfer scheduled by the CTC to occur in 2005-06. An additional \$100 million has been expended directly from the account.</p> <p><sup>(3)</sup> To date, \$130 million has been transferred from the PTA to the TBSRP, including the full amount of all transfers scheduled by the CTC.</p> <p><sup>(4)</sup> To date, \$10 million has been transferred from the SHA to the TBSRP, representing the commitment of "Efficiency Savings" identified under AB 144. Approximately \$120 million remains to be distributed as scheduled by the CTC.</p> <p><b>Notes:</b> Program budget includes \$900 million program contingency.</p>		

## PROGRAM FINANCING

AB 144 consolidated the administration of all toll revenues collected on the state-owned Bay Area toll bridges and financing of the TBSRP under the jurisdiction of BATA. BATA has direct programmatic responsibilities for the administration of all toll revenues collected on the state-owned bridges in the Bay Area and responsibilities for financial management of the TBSRP program, including:

- administrative responsibility for collection and accounting of all toll revenues
- authorization to increase tolls on the state-owned bridges by \$1.00, effective January 1, 2007
- project level toll-setting authority as necessary to cover additional cost increases beyond the funded program contingency in order to complete the TBSRP
- assumption of funding all of the roadway and bridge structure maintenance from Caltrans once bridge seismic retrofit projects are completed.

In accordance with its responsibilities provided under the law, in September 2005 BATA adopted a finance plan for the TBSRP. The major components of the finance plan include:

- issuing \$6.2 billion in debt, including defeasance of \$1.5 billion in outstanding State Infrastructure Bank (I-Bank) bonds and commercial paper
- increasing tolls on the state-owned bridges by \$1.00 (from \$3.00 to \$4.00 for two-axle vehicles), effective January 1, 2007;
- securing the maximum amount of state funding early in the construction schedule to most efficiently use toll funds (see the following discussion concerning the California Transportation Commission (CTC) funding schedule).
- locking in current interest rates to the extent possible in order to improve the likelihood that the entire toll program construction and the

operations and maintenance can be delivered within the \$4.00 auto toll level.

In March 2006, BATA approved the issuance of \$1.2 billion in bonds to defease the I-Bank bonds approved in October 2005. Additionally, pursuant to the law, BATA held two public hearings - one in October and one in November 2005 - to receive public testimony regarding the proposed \$1.00 seismic surcharge toll increase that began on January 1, 2007 on the state-owned toll bridges in the Bay Area. BATA approved the toll increase on January 25, 2006.

Pursuant to AB 144, on September 29, 2005, the CTC adopted a schedule, revised in December 2005, for the transfer of state funds to BATA to fund the TBSRP. The schedule contains the timing and sources of the state contributions, which began in Fiscal Year (FY) 2005-06, and distributes the contributions over the years of project construction to ensure a timely balance between state sources and the contributions from toll funds. In December 2005, the CTC re-adopted the schedule to reflect opportunities maximizing the use of available PTA funds and correct prior transfer transactions. The CTC's December 2005 revised schedule for the transfer of funds allows BATA to pledge the state fund contribution to the financing of the TBSRP per BATA's adopted finance plan. The CTC schedule is included in Appendix C.

In June 2008, BATA refunded \$500 million of the Series 2006 XL Capital auction rate bonds and variable rate demand notes. In July 2008, BATA was requested to approve the refunding of \$715 million in Ambac-insured bonds. The bonds were reissued as uninsured fixed rate bonds. The BATA total debt portfolio is approximately \$5.2 billion.

## CTC TBSRP Contributions Adopted December 2005

### Schedule of Contributions to the Toll Bridge Seismic Retrofit Program (\$ Millions)

Source	Description	2005-06 (Actual)	2006-07 (Actual)	2007-08 (Actual)	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Total	*
AB 1171	SHA	290									290	
	PTA	80	40								120	
	Highway Bridge Replacement and Rehabilitation (HBRR)	100	100	100	42						342	
	Contingency				1	99	100	100	148		448	
AB 144	SHA*	2	8				53	50	17		130	
	Motor Vehicle Account (MVA)	75									75	
	Spillover		125								125	
	SHA**									300	300	
	<b>Total</b>	547	273	100	43	99	153	150	165	300	1830	

\*Caltrans Efficiency Savings

\*\* SFOBB East Span Demolition Cost

## Summary of TBPOC Expenses

Pursuant to Streets and Highways Code Section 30952.1 (d), expenses incurred by Caltrans, BATA, and the California Transportation Commission (CTC) for costs directly related to the duties associated with the TBPOC are to be reimbursed by toll revenues. *Table 11-Toll Bridge Program Oversight Committee Estimated Expenses: July 1, 2005 through December 31, 2008* shows expenses through December 31, 2008 for TBPOC functioning, support, and monthly and quarterly reporting.

### Estimated Expenses: July 1, 2005 through December 31, 2008 (\$ Millions)

Agency/Program Activity	Expenses
BATA	0.6
Caltrans	1.4
CTC	0.7
Reporting	2.5
<b>Total Program</b>	<b>5.2</b>









**Seismic Retrofit of the Dumbarton and Antioch Bridges**

## SEISMIC RETROFIT OF DUMBARTON AND ANTIOCH BRIDGES

### Dumbarton Bridge Seismic Retrofit Project

#### Project Status: In Design

The Dumbarton Bridge was opened to traffic in 1982 linking the cities of Newark in Alameda County and East Palo Alto in San Mateo County. The 1.6-mile long bridge carries average daily traffic of nearly 60,000 vehicles over its six lanes and has an eight-foot bicycle/pedestrian lane to the south.

Though located between the San Andreas and Hayward faults, the Dumbarton Bridge was not included in the Toll Bridge Seismic Retrofit Program based on evaluations made in the 1990s that concluded the bridge did not warrant retrofitting. The bridge has since been reevaluated for seismic vulnerability based on more recent seismic engineering, which has shown the bridge to be susceptible to damage from a major earthquake.



Mock-up of Dumbarton Pier Columns Undergoing Seismic Testing



Existing Dumbarton Bridge Looking East towards the Alameda County Foothills

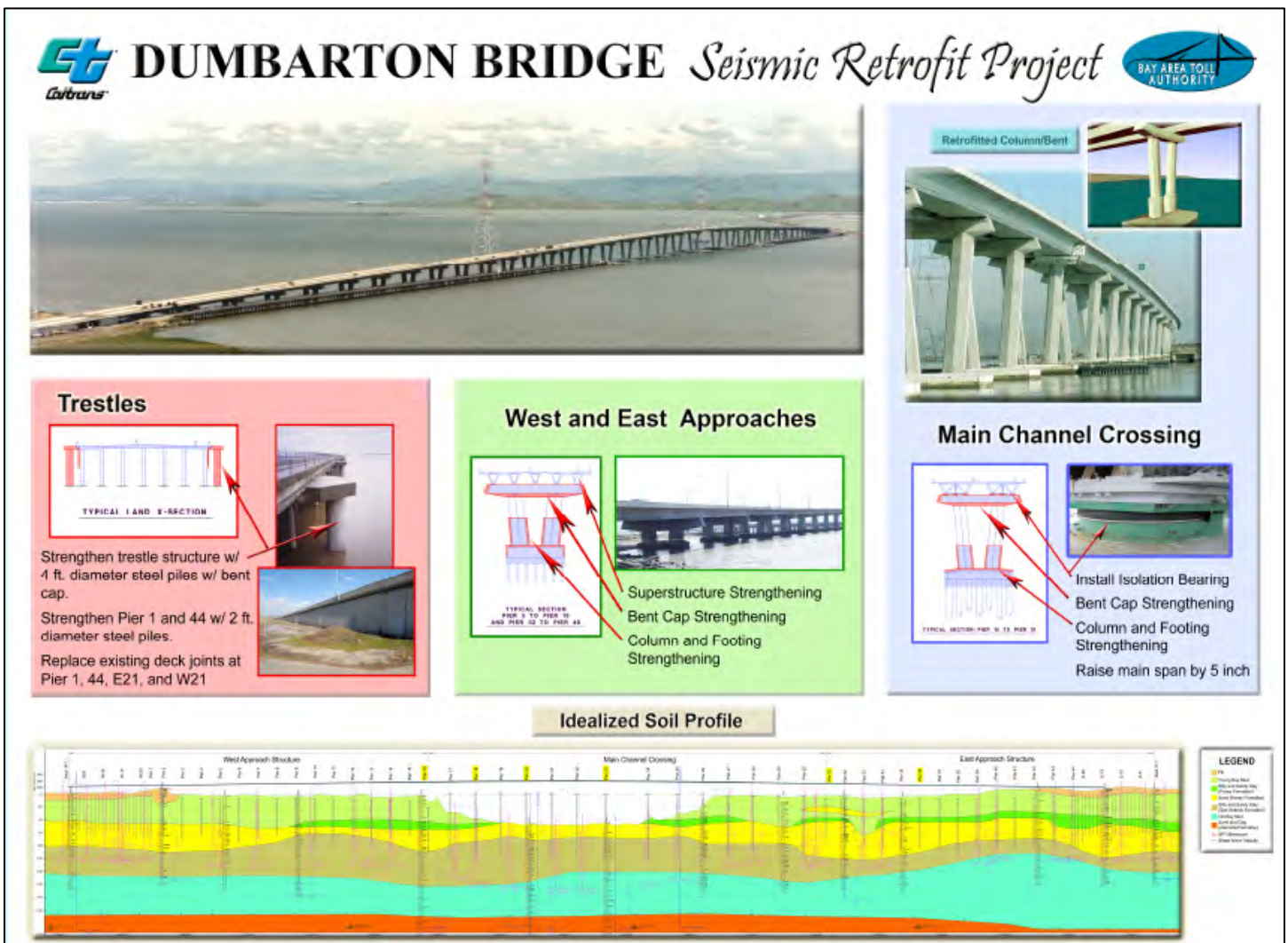


Based on the vulnerability studies and a follow-up sensitivity analysis of seismic risk, Caltrans and BATA decided to take steps towards retrofitting the Dumbarton bridge, even though full funding for the project has not yet been identified. Using BATA toll bridge rehabilitation funding, a comprehensive seismic analysis of the bridge has commenced. This includes detailed geotechnical and geophysical investigations at the bridge and the development of a seismic retrofit strategy and design plans.

The current retrofit strategy for the Dumbarton Bridge includes superstructure and deck modifications, plus strengthening of the over-land approach slab structures. Additional activities are identified in the

attached diagram. The results of the seismic analysis and proposed retrofit strategy have been presented to the Toll Bridge Seismic Safety Peer Review Panel.

**Status:** The project team delivered 65 percent design plans for review in March 2009. Complete plans and specifications are expected by the end of the year, with contract advertisement in 2010. The estimated cost of the Dumbarton Bridge seismic retrofit is \$637 million. Full funding for the project has not yet been identified, but will likely come from a combination of sources, such as a toll increase and state and/or federal funding.



## Seismic Retrofit Strategy Summary for Dumbarton Bridge



## SEISMIC RETROFIT OF DUMBARTON AND ANTIOCH BRIDGES

### Antioch Bridge Seismic Retrofit Project

#### Project Status: In Design

Serving the Delta region of the Bay Area, the Antioch Bridge takes State Route 160 traffic over the San Joaquin River linking eastern Contra Costa County with Sacramento County. The current bridge was opened in 1978 with one lane in each direction and carries an average of over 10,000 vehicles a day. Approximately 1.8 miles long, the bridge is a steel girder support roadway on reinforced concrete columns and foundations.

Like the Dumbarton Bridge, the Antioch bridge was not included in the Toll Bridge Seismic Retrofit Program based on evaluations made in the 1990s that concluded that the bridge did not warrant retrofitting. The Antioch bridge has since been reevaluated for seismic vulnerability based on more recent seismic engineering, which has shown the bridge to be susceptible to damage from a major earthquake.

Based on the vulnerability studies and a follow-up sensitivity analysis of seismic risk, Caltrans and BATA decided to take steps towards the retrofitting the Antioch Bridge, even though full funding for the project has not yet been identified. Using BATA toll bridge rehabilitation funding, a comprehensive seismic analysis of the bridge has commenced. This analysis includes detailed geotechnical and geophysical investigation at the bridge and the development of a seismic retrofit strategy and design plans.

The current retrofit strategy for the Antioch Bridge includes relatively minor modifications to the approach structure on Sherman Island, addition of isolation bearings, strengthening of the columns, and hinge retrofits. The results of the seismic analysis and proposed retrofit strategy have been presented to the Toll Bridge Seismic Safety Peer Review Panel.

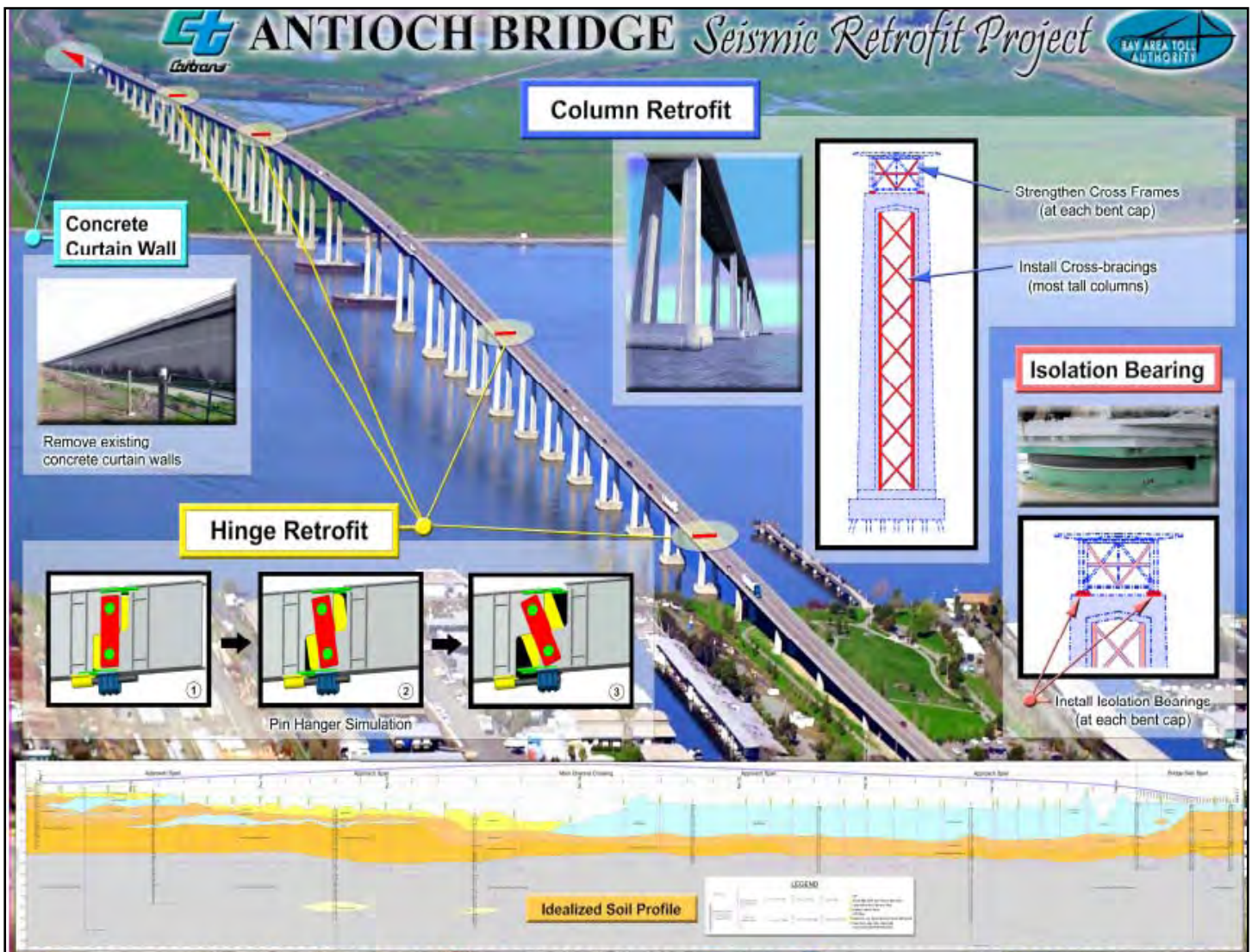


Antioch Bridge

**Status:** The project team delivered 65 percent design plans for review in March 2009. Complete plans and specifications are expected by the end of the year, with contract advertisement in 2010. The estimated cost of the Antioch Bridge seismic retrofit is \$313 million. Full funding for the project has not yet been identified, but will likely come from a combination of sources, such as a toll increase, and state and/or federal funding.



Sample of Lower Half of Isolation Bearing and Slider Used on Benicia Bridge Seismic Retrofit Project



Seismic Retrofit Strategy Summary for Antioch Bridge

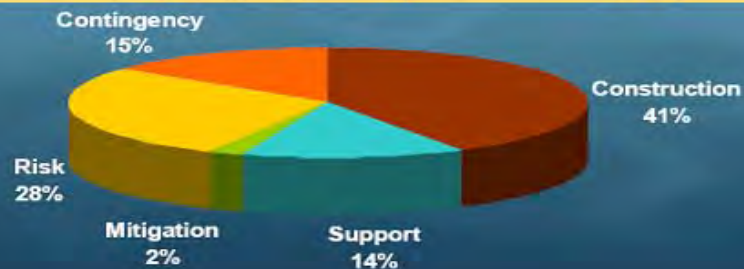


## Seismic Retrofits of Dumbarton and Antioch Bridges

### Project Cost and Schedule Summaries

# Total Project Costs - \$950 Million <sup>1</sup>

Description	Antioch (\$ Millions)	Dumbarton (\$ Millions)
<b>CONSTRUCTION COST (ESCALATION TO MID YEAR OF CONSTRUCTION)</b>	<b>\$125</b>	<b>\$267</b>
<b>CONTINGENCIES</b>	<b>44</b>	<b>94</b>
<b>SUBTOTAL CAPITAL COSTS</b>	<b>169</b>	<b>361</b>
<b>SUPPORT COSTS</b>	<b>39</b>	<b>95</b>
<b>MITIGATION COSTS</b>	<b>13</b>	<b>7</b>
<b>RISK COSTS</b>	<b>92</b>	<b>174</b>
<b>TOTAL COST ESTIMATE</b>	<b>\$313</b>	<b>\$637</b>



Milestone	2008				2009				2010			
	1	2	3	4	1	2	3	4	1	2	3	4
<b>PSR Phase</b>												
Begin Retrofit Strategy Study	(Apr 06) cpt											
<b>Geotechnical Investigations</b>												
Geotechnical Investigations	(Jan08)											
<b>Modeling and Analysis - As - Built</b>												
Draft As-Built Analysis Report Incl. Testing	(Dec07-Feb08)											
Final As-Built Analysis Report	(Feb08-Apr08)											
<b>Environmental</b>												
Project Reports	(Feb08-Sep08)											
Permits - Environmental	(Feb08-Jun09)											
<b>Agencies Permits</b>												
Right of Way	(Jan08-Sep09)											
<b>Office Engineering</b>												
Strategy Meeting	(August 22, 2008)											
Submit Plan/Footprint for Permit	(September 1, 2008)											
Retrofit Strategy Estimate	(Aug08-Oct08)											
Final Strategy Report	(Nov08-Dec08)											
65% Unchecked Detail	(Mar 2009)											
P & Q	(May09)											
Draft Structural PS&E	(Jun09)											
Structural PS&E	(Jul09)											
District PS&E	(Aug09)											
Ready to List	(Sep09-Nov09)											
Advertise	(Dec09-Mar10)											
Award	(April10)											
Testing	(Apr08-Jun09)											

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## REGIONAL MEASURE 1 TOLL BRIDGE PROGRAM

## REGIONAL MEASURE 1 PROGRAM

### New Benicia-Martinez Bridge Project

#### Project Status: New Bridge Completed 2007

The new Congressman George Miller Bridge opened to traffic in August 2007 taking its place alongside the existing 1962 Benicia-Martinez Bridge, which is named for Congressman Miller's father, the late George Miller, Jr. The new bridge carries five lanes of northbound Interstate 680 traffic, while the existing bridge is being upgraded to carry four lanes of southbound traffic and a new bicycle/pedestrian pathway.

Decades in the planning and construction, the new bridge is designed to a "Lifeline" seismic design standard, expected to be available for emergency response vehicles soon after a major seismic event. Constructed of lightweight concrete, the structure is one of the longest post-tensioned reinforced cast-in-place concrete bridges in the world. The new toll plaza, relocated from Benicia to Martinez, features the Bay Area's first FasTrak® express lanes, which vastly increase the throughput of vehicles using electronic toll collection.



New Benicia-Martinez Bridge Opened to Traffic in August 2007

### 1962 Benicia-Martinez Bridge Reconstruction Contract

Contractor: ACC/Top Grade, Joint Venture

Approved Capital Outlay Budget: \$59.5 M

Status: 63% Complete

A two-year project to rehabilitate and reconfigure the original Benicia-Martinez Bridge began shortly after the opening of the new Congressman George Miller Bridge. The existing 1.2-mile roadway surface on the steel deck truss bridge is being modified to carry four lanes of southbound traffic (one more than before) - with shoulders on both sides - plus a bicycle/pedestrian path on the west side of the span that will connect to Park Road in Benicia and to Marina Vista Boulevard in Martinez.

#### ***Stage 1 – Reconstruction of East Side of Bridge and Approaches***

Completed in August 2008, this stage involved removal of the old toll plaza on the Benicia side of the bridge, deck repairs on the east side of span, and repair of the roadway undulations on the southern approach just south of the Marina Vista interchange.



Bike Path to Vista Point on the North Side



### ***Stage 2 – Reconstruction of West Side of Bridge and Approaches and Construction of Bicycle/Pedestrian Pathway***

This stage began after southbound traffic was shifted from the west side of the bridge to the newly refurbished east side. It involves repairing the west side bridge deck, repairing undulations on the west side of the roadway in Martinez, demolishing obsolete I-680/I-780 interchange structures, realigning southbound Interstate 680 for four lanes, and construction of the barrier separating traffic lanes from the bicycle/pedestrian path.

**Status:** Remaining tasks include raising the western portions of the Marina Vista interchange to bring the lanes into the proper alignment, completion of deck rehabilitation work, repair of roadway undulations, and the addition of a new concrete barrier to separate pedestrians and bicyclists from vehicular traffic. The work is currently two months ahead of schedule.



**Bike Path North**



**New Pedestrian/Bicycle Pathway Is under Construction on the West Side of the Existing Bridge**



## REGIONAL MEASURE 1 PROGRAM

### Interstate 880/State Route 92 Interchange Reconstruction Project

**Project Status: Under Construction**

The Interstate 880/State Route 92 Interchange Reconstruction Project is the final project under the Regional Measure 1 Toll Bridge Program. Project completion fulfills a promise made to Bay Area voters in 1988 to deliver a slate of projects that help expand bridge capacity and improve safety on the bridges.

This corridor is consistently one of the Bay Area's most congested during the evening commute. This is due in part to the lane merging and weaving that is required by the existing cloverleaf interchange. The new interchange will feature direct freeway-to-freeway connector ramps that will increase traffic capacity and improve overall safety and traffic operations in the area. With the new direct connector ramps, drivers coming off the San Mateo-Hayward Bridge can access Interstate 880 without having to compete with traffic headed onto east Route 92 from south Interstate 880 (see progress photos on pages 86 and 87)..



Future Interstate 880/State Route 92 Interchange (as simulated)  
Looking West towards San Mateo.

### Interstate 880/State Route 92 Interchange Reconstruction Contract

Contractor: Flatiron/Granite

Approved Capital Outlay Budget: \$155.0 M

Status: **45% Complete**



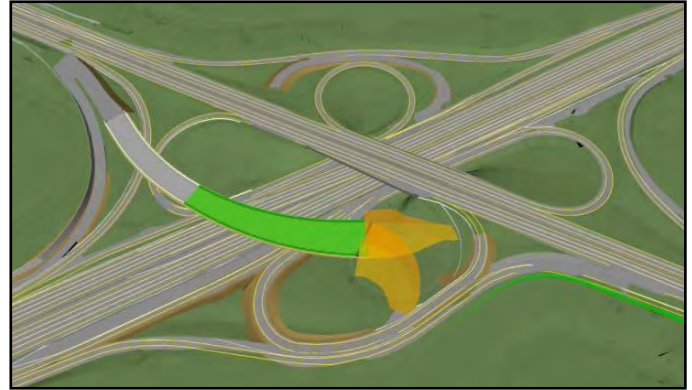
New East Route 92 to North Interstate 880 Connector under Construction.



### **Stage 1 – Construct East Route 92 to North Interstate 880 Connector**

The new east Route 92 to north Interstate 880 connector (ENCONN) is the most critical flyover structure for relieving congestion in the corridor. The ENCONN will be first used as a detour to allow for future stages of work, while keeping traffic flowing.

**Status:** The structure is nearly complete and is scheduled to open to detour traffic in May 2009.

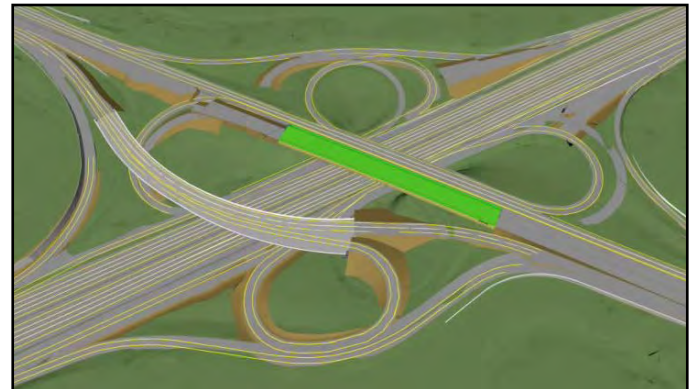


**Stage 1 - Construct East Route 92 to North Interstate 880 Direct Connector**

### **Stage 2 – Replace South Side of Route 92 Separation Structure**

By detouring eastbound Route 92 traffic onto ENCONN, the existing separation structure that carries SR-92 over I-880 can be replaced. The separation structure needs to be elevated to accommodate east Route 92 to north Interstate 880 traffic under it without a loop alignment. The existing structure will be cut lengthwise, and then demolished and replaced separately. In this stage, the south side of the structure will be replaced, while west Route 92 and south Interstate 880 to east Route 92 traffic will stay on the remaining structure.

**Status:** Pending Stage 1.

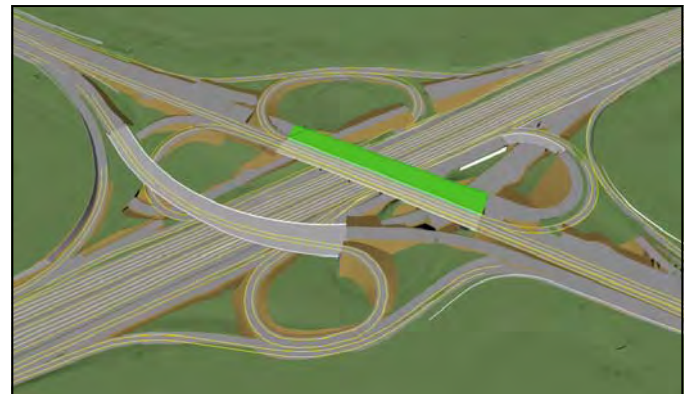


**Stage 2 - Demolish and Replace South Side of Route 92 Separation Structure**

### **Stage 3 – Replace North Side Route 92 Separation Structure**

Upon completion of Stage 2, the existing north side of the separation structure will be demolished and replaced. Its traffic will then be shifted onto the newly reconstructed south side.

**Status:** Pending Stage 2.



**Stage 3 - Demolish and Replace North Side of Route 92 Separation Structure**

### **Stage 4 – Final Realignment and Other Work**

Upon completion of the Route 92 separation structure, east Route 92 traffic can be shifted onto its permanent alignment from the new ENCONN and directly under the new separation structure. Along with the ENCONN and Route 92 separation structures, several soundwalls, a pedestrian overcrossing on I-880 at Eldridge Avenue and other ramps and structures will also be reconstructed as part of this project.

**Status:** The soundwalls in the northwest and southwest quadrants of the interchange are complete. Work continues on walls in the southeast and northeast quadrants, as well as on the pedestrian overcrossing. Final realignment is pending Stage 3.



**Stage 4 - Final Realignment and Other Work**

## REGIONAL MEASURE 1 PROGRAM

### Other Completed Projects

#### San Mateo-Hayward Bridge Widening Project

**Project Status: Completed 2003**



This project expanded the low-rise concrete trestle section of the San Mateo-Hayward Bridge to allow for three lanes in each direction to match the existing configuration of the high-rise steel section of bridge.

Widening of the San Mateo-Hayward Bridge Trestle on Left

#### Richmond-San Rafael Bridge Rehabilitation Projects

**Project Status: Completed 2006**

Two major rehabilitation projects for the Richmond-San Rafael Bridge were funded and completed:

- (1) replacement of the western concrete approach trestle and ship-collision protection fender system; and
- (2) rehabilitation of deck joints and resurfacing of the bridge deck.

In 2005, along with the seismic retrofit of the bridge, the trestle and fender replacement work was completed as part of the same project. Under a separate contract in 2006, the bridge was resurfaced with a polyester concrete overlay along with the repair of numerous deck joints.



New Richmond-San Rafael Bridge West Approach Trestle under Construction

#### Richmond Parkway Construction Project

**Project Status: Completed 2001**

The final connections to the Richmond Parkway from Interstate 580 near the Richmond-San Rafael Bridge were completed in May 2001.





New Alfred Zampa Memorial (Carquinez) Bridge Soon after Opening to Traffic with Crockett Interchange Still under Construction.

## **New Alfred Zampa Memorial (Carquinez) Bridge Project**

**Project Status: Completed 2003**

The new western span of the Carquinez Bridge, which replaced the original 1927 span, is a twin-towered suspension bridge with three mixed-flow lanes, a new carpool lane, shoulders and a bicycle and pedestrian pathway.

## **Bayfront Expressway (State Route 84) Widening Project**

**Project Status: Completed 2004**

This project expanded and improved the roadway from the Dumbarton Bridge touchdown to the U.S. 101/Marsh Road interchange by adding additional lanes and turn pockets and improving bicycle and pedestrian access in the area.





East Tie-In Skid Beam Truss Support Structure under Construction

## APPENDICES

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## Appendix A: Toll Bridge Seismic Retrofit Program (\$ Millions)

SAN FRANCISCO-OAKLAND BAY BRIDGE (SFOBB)  
EAST SPAN REPLACEMENT PROJECT COST DETAIL

Contract	EA Number	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (02/2009)	Cost To Date (02/2009)	Cost Forecast (02/2009)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>San Francisco-Oakland Bay Bridge East Span Replacement Project</b>							
<b>East Span - Skyway</b>	<b>01202X</b>						
Capital Outlay Support		197.0	(16.0)	181.0	181.1	181.0	-
Capital Outlay Construction		1,293.0	(38.9)	1,254.1	1,236.7	1,254.1	-
<b>Total</b>		1,490.0	(54.9)	1,435.1	1,417.8	1,435.1	-
<b>East Span - SAS E2/T1 Foundations</b>	<b>0120EX</b>						
Capital Outlay Support		52.5	(21.5)	31.0	28.4	31.0	-
Capital Outlay Construction		313.5	(32.6)	280.9	275.0	280.9	-
<b>Total</b>		366.0	(54.1)	311.9	303.4	311.9	-
<b>East Span - SAS Superstructure</b>	<b>0120FX</b>						
Capital Outlay Support		214.6	-	214.6	134.1	214.6	-
Capital Outlay Construction		1,753.7	-	1,753.7	648.1	1,767.4	13.7
<b>Total</b>		1,968.3	-	1,968.3	782.2	1,982.0	13.7
<b>SAS W2 Foundations</b>	<b>0120CX</b>						
Capital Outlay Support		10.0	-	10.0	9.2	10.0	-
Capital Outlay Construction		26.4	-	26.4	25.8	26.4	-
<b>Total</b>		36.4	-	36.4	35.0	36.4	-
<b>YBI South/South Detour</b>	<b>0120RX</b>						
Capital Outlay Support		29.4	36.6	66.0	58.3	66.0	-
Capital Outlay Construction		132.0	310.2	442.2	290.8	461.2	19.0
<b>Total</b>		161.4	346.8	508.2	349.1	527.2	19.0
<b>YBI Transition Structures (see notes below)</b>	<b>0120PX</b>						
Capital Outlay Support		78.7	-	78.7	23.3	78.7	-
Capital Outlay Construction		299.3	(23.2)	276.1	-	276.1	-
<b>Total</b>		378.0	(23.2)	354.8	23.3	354.8	-
<b>* YBI- Transition Structures Contract No. 1</b>							
Capital Outlay Support					4.4	45.0	
Capital Outlay Construction					-	214.3	
<b>Total</b>					4.4	259.3	
<b>* YBI- Transition Structures Contract No. 2</b>							
Capital Outlay Support					2.6	16.0	
Capital Outlay Construction					-	58.5	
<b>Total</b>					2.6	74.5	
<b>* YBI- Transition Structures Contract No. 3 Landscape</b>							
Capital Outlay Support					-	1.0	
Capital Outlay Construction					-	3.3	
<b>Total</b>					-	4.3	
<b>Oakland Touchdown (see notes below)</b>	<b>01204X</b>						
Capital Outlay Support		74.4	-	74.4	52.2	92.1	17.7
Capital Outlay Construction		283.8	-	283.8	156.8	302.5	18.7
<b>Total</b>		358.2	-	358.2	209.0	394.6	36.4
<b>* OTD Submarine Cable</b>	<b>0120K4</b>						
Capital Outlay Support					0.9	3.0	
Capital Outlay Construction					7.9	9.6	
<b>Total</b>					8.8	12.6	
<b>* OTD No. 1 (Westbound)</b>	<b>0120L4</b>						
Capital Outlay Support					28.4	49.9	
Capital Outlay Construction					148.9	226.5	
<b>Total</b>					177.3	276.4	
<b>* OTD No. 2 (Eastbound)</b>	<b>0120M4</b>						
Capital Outlay Support					2.3	15.8	
Capital Outlay Construction					-	62.0	
<b>Total</b>					2.3	77.8	
<b>* OTD Electrical Systems</b>	<b>0120N4</b>						
Capital Outlay Support					0.6	1.4	
Capital Outlay Construction					-	4.4	
<b>Total</b>					0.6	5.8	

Notes: YBI Transition Structures and Oakland Touchdown Cost-to-Date and Cost Forecast includes prior-to-split Capital Outlay Support Costs.

Note: Details may not sum to totals due to rounding effects.



## Appendix A: Toll Bridge Seismic Retrofit Program (\$ Millions)

# SAN FRANCISCO-OAKLAND BAY BRIDGE (SFOBB)

## EAST SPAN REPLACEMENT PROJECT COST DETAIL (continued)

Contract	EA Number	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (02/2009)	Cost To Date (02/2009)	Cost Forecast (02/2009)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>Existing Bridge Demolition</b>	<b>01209X</b>						
Capital Outlay Support		79.7	-	79.7	0.4	79.7	-
Capital Outlay Construction		239.2	-	239.2	-	222.0	(17.2)
<b>Total</b>		<b>318.9</b>	<b>-</b>	<b>318.9</b>	<b>0.4</b>	<b>301.7</b>	<b>(17.2)</b>
<b>YBI/SAS Archeology</b>	<b>01207X</b>						
Capital Outlay Support		1.1	-	1.1	1.1	1.1	-
Capital Outlay Construction		1.1	-	1.1	1.1	1.1	-
<b>Total</b>		<b>2.2</b>	<b>-</b>	<b>2.2</b>	<b>2.2</b>	<b>2.2</b>	<b>-</b>
<b>YBI - USCG Road Relocation</b>	<b>0120QX</b>						
Capital Outlay Support		3.0	-	3.0	2.7	3.0	-
Capital Outlay Construction		3.0	-	3.0	2.8	3.0	-
<b>Total</b>		<b>6.0</b>	<b>-</b>	<b>6.0</b>	<b>5.5</b>	<b>6.0</b>	<b>-</b>
<b>YBI - Substation and Viaduct</b>	<b>0120GX</b>						
Capital Outlay Support		6.5	-	6.5	6.4	6.5	-
Capital Outlay Construction		11.6	-	11.6	11.3	11.6	-
<b>Total</b>		<b>18.1</b>	<b>-</b>	<b>18.1</b>	<b>17.7</b>	<b>18.1</b>	<b>-</b>
<b>Oakland Geofill</b>	<b>01205X</b>						
Capital Outlay Support		2.5	-	2.5	2.5	2.5	-
Capital Outlay Construction		8.2	-	8.2	8.2	8.2	-
<b>Total</b>		<b>10.7</b>	<b>-</b>	<b>10.7</b>	<b>10.7</b>	<b>10.7</b>	<b>-</b>
<b>Pile Installation Demonstration Project</b>	<b>01208X</b>						
Capital Outlay Support		1.8	-	1.8	1.8	1.8	-
Capital Outlay Construction		9.2	-	9.2	9.2	9.2	-
<b>Total</b>		<b>11.0</b>	<b>-</b>	<b>11.0</b>	<b>11.0</b>	<b>11.0</b>	<b>-</b>
<b>Stormwater Treatment Measures</b>	<b>0120JX</b>						
Capital Outlay Support		6.0	2.0	8.0	8.1	8.0	-
Capital Outlay Construction		15.0	3.3	18.3	16.7	18.3	-
<b>Total</b>		<b>21.0</b>	<b>5.3</b>	<b>26.3</b>	<b>24.8</b>	<b>26.3</b>	<b>-</b>
<b>Right-of-Way and Environmental Mitigation</b>	<b>0120X9</b>						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay & Right-of-Way		72.4	-	72.4	50.2	72.4	-
<b>Total</b>		<b>72.4</b>	<b>-</b>	<b>72.4</b>	<b>50.2</b>	<b>72.4</b>	<b>-</b>
	<b>04343X &amp; 04300X</b>						
<b>Sunk Cost - Existing East Span Retrofit</b>							
Capital Outlay Support		39.5	-	39.5	39.5	39.5	-
Capital Outlay Construction		30.8	-	30.8	30.8	30.8	-
<b>Total</b>		<b>70.3</b>	<b>-</b>	<b>70.3</b>	<b>70.3</b>	<b>70.3</b>	<b>-</b>
<b>Other Capital Outlay Support</b>							
Environmental Phase		97.7	-	97.7	97.7	97.7	-
Pre-Split Project Expenditures		44.9	-	44.9	44.9	44.9	-
Non-project Specific Costs		20.0	(1.0)	19.0	3.2	19.0	-
<b>Total</b>		<b>162.6</b>	<b>(1.0)</b>	<b>161.6</b>	<b>145.8</b>	<b>161.6</b>	<b>-</b>
<b>Subtotal Capital Outlay Support</b>		<b>959.3</b>	<b>-</b>	<b>959.3</b>	<b>694.9</b>	<b>977.1</b>	<b>17.7</b>
<b>Subtotal Capital Outlay Construction</b>		<b>4,492.2</b>	<b>218.8</b>	<b>4,711.0</b>	<b>2,763.5</b>	<b>4,745.2</b>	<b>34.2</b>
<b>Other Budgeted Capital</b>		<b>35.1</b>	<b>(3.3)</b>	<b>31.8</b>	<b>0.7</b>	<b>7.7</b>	<b>(24.1)</b>
<b>Total SFOBB East Span Replacement Project</b>		<b>5,486.6</b>	<b>215.5</b>	<b>5,702.1</b>	<b>3,459.1</b>	<b>5,730.0</b>	<b>27.9</b>

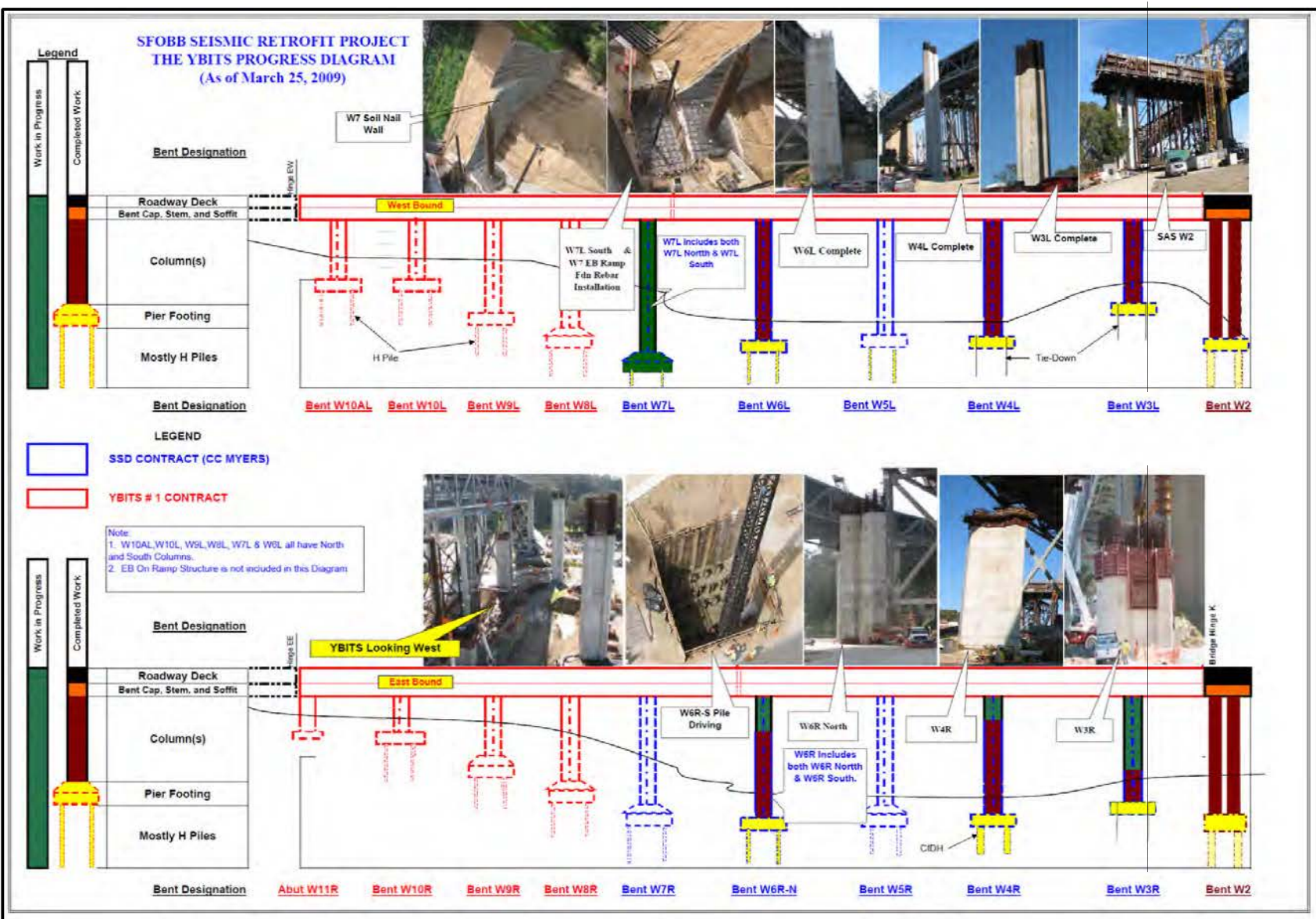
Note: Details may not sum to totals due to rounding effects.

## Appendix B: Toll Bridge Seismic Retrofit Program Cost Detail

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (02/2009)	Cost To Date (02/2009)	Cost Forecast (02/2009)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
<b>SFOBB East Span Replacement Project</b>						
Capital Outlay Support	959.3	-	959.3	694.9	977.1	17.8
Capital Outlay Construction	4,492.2	218.8	4,711.0	2,763.5	4,745.2	34.2
Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
<b>Total</b>	<b>5,486.6</b>	<b>215.5</b>	<b>5,702.1</b>	<b>3,459.1</b>	<b>5,730.0</b>	<b>27.9</b>
<b>SFOBB West Approach Replacement</b>						
Capital Outlay Support	120.0	-	120.0	114.1	120.0	-
Capital Outlay Construction	309.0	41.7	350.7	311.1	350.7	-
<b>Total</b>	<b>429.0</b>	<b>41.7</b>	<b>470.7</b>	<b>425.2</b>	<b>470.7</b>	<b>-</b>
<b>SFOBB West Span Retrofit</b>						
Capital Outlay Support	75.0	-	75.0	74.8	75.0	-
Capital Outlay Construction	232.9	-	232.9	227.2	232.9	-
<b>Total</b>	<b>307.9</b>	<b>-</b>	<b>307.9</b>	<b>302.0</b>	<b>307.9</b>	<b>-</b>
<b>Richmond-San Rafael Bridge Retrofit</b>						
Capital Outlay Support	134.0	(7.0)	127.0	126.7	127.0	-
Capital Outlay Construction	780.0	(90.5)	689.5	668.1	689.5	-
<b>Total</b>	<b>914.0</b>	<b>(97.5)</b>	<b>816.5</b>	<b>794.8</b>	<b>816.5</b>	<b>-</b>
<b>Benicia-Martinez Bridge Retrofit</b>						
Capital Outlay Support	38.1	-	38.1	38.1	38.1	-
Capital Outlay Construction	139.7	-	139.7	139.7	139.7	-
<b>Total</b>	<b>177.8</b>	<b>-</b>	<b>177.8</b>	<b>177.8</b>	<b>177.8</b>	<b>-</b>
<b>Carquinez Bridge Retrofit</b>						
Capital Outlay Support	28.7	-	28.7	28.8	28.7	-
Capital Outlay Construction	85.5	-	85.5	85.5	85.5	-
<b>Total</b>	<b>114.2</b>	<b>-</b>	<b>114.2</b>	<b>114.3</b>	<b>114.2</b>	<b>-</b>
<b>San Mateo-Hayward Bridge Retrofit</b>						
Capital Outlay Support	28.1	-	28.1	28.1	28.1	-
Capital Outlay Construction	135.4	-	135.4	135.3	135.4	-
<b>Total</b>	<b>163.5</b>	<b>-</b>	<b>163.5</b>	<b>163.4</b>	<b>163.5</b>	<b>-</b>
<b>Vincent Thomas Bridge Retrofit (Los Angeles)</b>						
Capital Outlay Support	16.4	-	16.4	16.4	16.4	-
Capital Outlay Construction	42.1	-	42.1	42.0	42.1	-
<b>Total</b>	<b>58.5</b>	<b>-</b>	<b>58.5</b>	<b>58.4</b>	<b>58.5</b>	<b>-</b>
<b>San Diego-Coronado Bridge Retrofit</b>						
Capital Outlay Support	33.5	-	33.5	33.2	33.5	-
Capital Outlay Construction	70.0	-	70.0	69.4	70.0	-
<b>Total</b>	<b>103.5</b>	<b>-</b>	<b>103.5</b>	<b>102.6</b>	<b>103.5</b>	<b>-</b>
<b>Subtotal Capital Outlay Support</b>	<b>1,433.1</b>	<b>(7.0)</b>	<b>1,426.1</b>	<b>1,155.1</b>	<b>1,443.9</b>	<b>17.8</b>
<b>Subtotal Capital Outlay</b>	<b>6,286.8</b>	<b>170.0</b>	<b>6,456.8</b>	<b>4,441.8</b>	<b>6,491.0</b>	<b>34.2</b>
<b>Subtotal Other Budgeted Capital</b>	<b>35.1</b>	<b>(3.3)</b>	<b>31.8</b>	<b>0.7</b>	<b>7.7</b>	<b>(24.1)</b>
<b>Miscellaneous Program Costs</b>	<b>30.0</b>	<b>-</b>	<b>30.0</b>	<b>24.7</b>	<b>30.0</b>	<b>-</b>
<b>Subtotal Toll Bridge Seismic Retrofit Program</b>	<b>7,785.0</b>	<b>159.7</b>	<b>7,944.7</b>	<b>5,622.3</b>	<b>7,972.6</b>	<b>27.9</b>
<b>Program Contingency</b>	<b>900.0</b>	<b>(159.7)</b>	<b>740.3</b>	<b>-</b>	<b>712.4</b>	<b>(27.9)</b>
<b>Total Toll Bridge Seismic Retrofit Program</b>	<b>8,685.0</b>	<b>-</b>	<b>8,685.0</b>	<b>5,622.3</b>	<b>8,685.0</b>	<b>-</b>

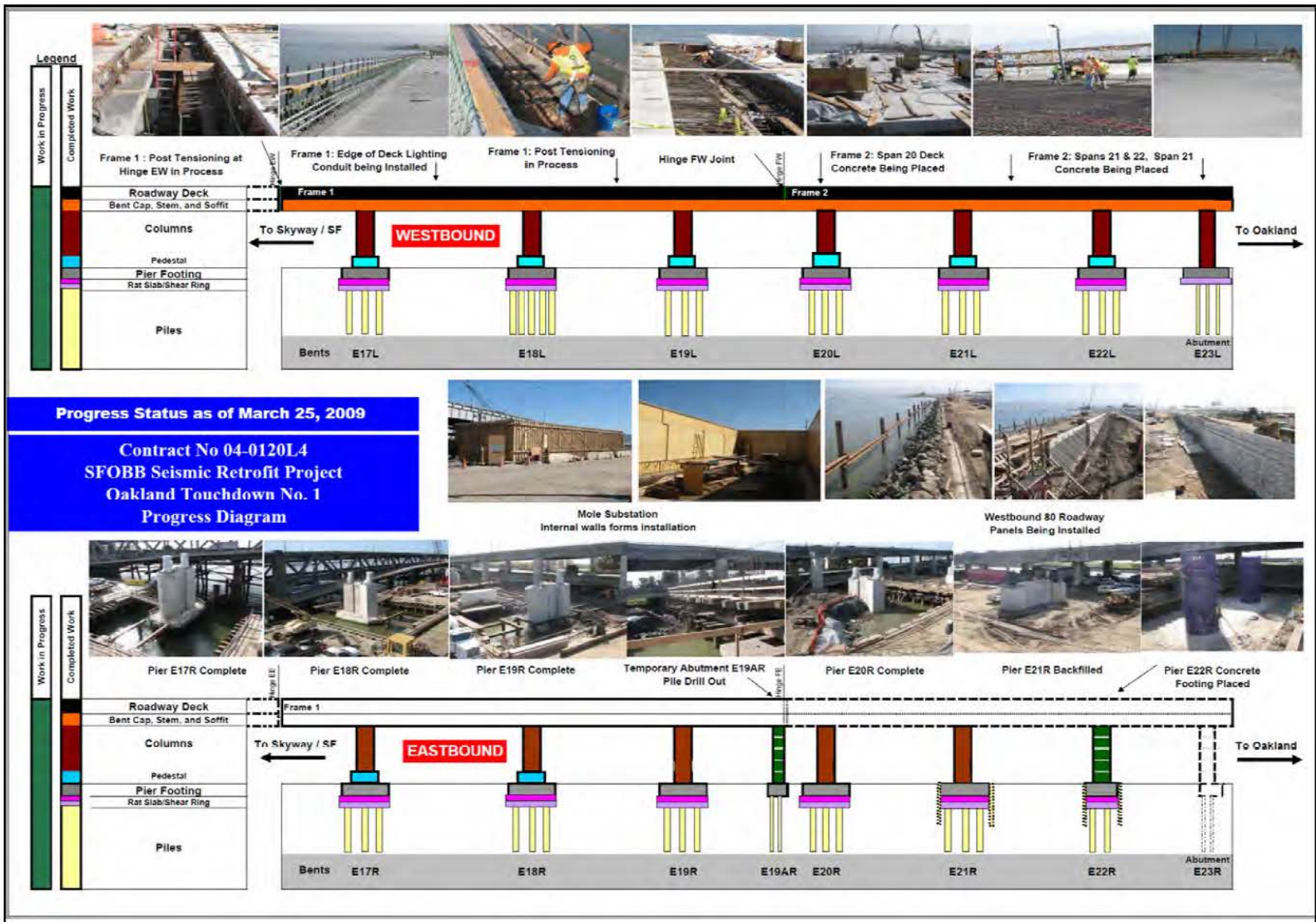
Note: Details may not sum to totals due to rounding effects.

# Appendix C: YBITS Advanced Work Project Progress Diagram





## Appendix D: OTD #1 Program Diagram



## Appendix E: Regional Measure 1 Program Cost Detail (\$ Millions)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (02/2009)	Cost To Date (02/2009)	Cost Forecast (02/2009)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>New Benicia-Martinez Bridge Project</b>							
<b>New Bridge</b>	<b>00603_</b>						
Capital Outlay Support		84.9	6.7	91.6	91.7	91.6	-
Capital Outlay Construction				-			-
BATA Funding		661.9	94.6	756.5	753.8	756.5	-
Non-BATA Funding		10.1	-	10.1	10.1	10.1	-
Subtotal		672.0	94.6	766.6	763.9	766.6	-
<b>Total</b>		756.9	101.3	858.2	855.6	858.2	-
<b>I-680/I-780 Interchange Reconstruction</b>							
<b>I-680/I-780 Interchange Reconstruction</b>	<b>00606_</b>						
Capital Outlay Support							
BATA Funding		24.9	5.2	30.1	30.1	30.1	-
Non-BATA Funding		1.4	5.2	6.6	6.3	6.6	-
Subtotal		26.3	10.4	36.7	36.4	36.7	-
Capital Outlay Construction							
BATA Funding		54.7	26.9	81.6	77.1	81.6	-
Non-BATA Funding		21.6	-	21.6	21.7	21.6	-
Subtotal		76.3	26.9	103.2	98.8	103.2	-
<b>Total</b>		102.6	37.3	139.9	135.2	139.9	-
<b>I-680/Marina Vista Interchange Reconstruction</b>							
<b>I-680/Marina Vista Interchange Reconstruction</b>	<b>00605_</b>						
Capital Outlay Support		18.3	1.8	20.1	19.9	20.1	-
Capital Outlay Construction		51.5	4.9	56.4	56.1	56.4	-
<b>Total</b>		69.8	6.7	76.5	76.0	76.5	-
<b>New Toll Plaza and Administration Building</b>							
<b>New Toll Plaza and Administration Building</b>	<b>00604_</b>						
Capital Outlay Support		11.9	3.8	15.7	15.7	15.7	-
Capital Outlay Construction		24.3	2.0	26.3	23.6	26.3	-
<b>Total</b>		36.2	5.8	42.0	39.3	42.0	-
<b>Existing Bridge &amp; Interchange Modifications</b>							
<b>Existing Bridge &amp; Interchange Modifications</b>	<b>0060A_</b>						
Capital Outlay Support		4.3	14.3	18.6	14.7	18.6	-
Capital Outlay Construction							
BATA Funding		17.2	32.8	50.0	21.1	50.0	-
Non-BATA Funding		-	9.5	9.5	-	9.5	-
Subtotal		17.2	42.3	59.5	21.1	59.5	-
<b>Total</b>		21.5	56.6	78.1	35.8	78.1	-
<b>Other Contracts</b>							
<b>Other Contracts</b>	<b>See note below</b>						
Capital Outlay Support		11.4	(1.8)	9.6	7.7	9.6	-
Capital Outlay Construction		20.3	2.8	23.1	16.5	23.1	-
Capital Outlay Right-of-Way		20.4	(0.1)	20.3	17.0	20.3	-
<b>Total</b>		52.1	0.9	53.0	41.2	53.0	-
<b>Subtotal BATA Capital Outlay Support</b>		155.7	30.0	185.7	179.8	185.7	-
<b>Subtotal BATA Capital Outlay Construction</b>		829.9	164.0	993.9	948.2	993.9	-
<b>Subtotal Capital Outlay Right-of-Way</b>		20.4	(0.1)	20.3	17.0	20.3	-
<b>Subtotal Non-BATA Capital Outlay Support</b>		1.4	5.2	6.6	6.3	6.6	-
<b>Subtotal Non-BATA Capital Outlay Construction</b>		31.7	9.5	41.2	31.8	41.2	-
<b>Project Reserves</b>		20.8	4.0	24.8	-	24.8	-
<b>Total New Benicia-Martinez Bridge Project</b>		<b>1,059.9</b>	<b>212.6</b>	<b>1,272.5</b>	<b>1,183.1</b>	<b>1,272.5</b>	<b>-</b>

## Notes:

Includes EA's 00601\_, 00603\_, 00605\_, 00606\_, 00608\_, 00609\_, 0060A\_, 0060C\_, 0060E\_, 0060F\_, 0060G\_, and 0060H\_ and all Project Right-of-Way

Note: Details may not sum to totals due to rounding effects.

## Appendix E: Regional Measure 1 Program Cost Detail (\$ Millions) (Continued)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (02/2009)	Cost To Date (02/2009)	Cost Forecast (02/2009)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>Carquinez Bridge Replacement Project</b>							
<b>New Bridge</b>	<b>01301_</b>						
Capital Outlay Support		60.5	(0.3)	60.2	60.2	60.2	-
Capital Outlay Construction		253.3	4.0	257.3	255.9	257.3	-
<b>Total</b>		313.8	3.7	317.5	316.1	317.5	-
<b>Crockett Interchange Reconstruction</b>	<b>01305_</b>						
Capital Outlay Support		32.0	(0.1)	31.9	31.9	31.9	-
Capital Outlay Construction		73.9	-	73.9	71.9	73.9	-
<b>Total</b>		105.9	(0.1)	105.8	103.8	105.8	-
<b>Existing 1927 Bridge Demolition</b>	<b>01309_</b>						
Capital Outlay Support		16.1	-	16.1	15.5	15.5	(0.6)
Capital Outlay Construction		35.2	-	35.2	34.8	35.2	-
<b>Total</b>		51.3	-	51.3	50.3	50.7	(0.6)
<b>Other Contracts</b>	<b>See note below</b>						
Capital Outlay Support		15.8	0.2	16.0	16.3	16.3	0.3
Capital Outlay Construction		18.8	(0.8)	18.0	16.1	18.1	0.1
Capital Outlay Right-of-Way		10.5	-	10.5	9.9	10.5	-
<b>Total</b>		45.1	(0.6)	44.5	42.3	44.9	0.4
<b>Subtotal BATA Capital Outlay Support</b>		124.4	(0.2)	124.2	123.9	123.9	(0.3)
<b>Subtotal BATA Capital Outlay Construction</b>		381.2	3.2	384.4	378.7	384.5	0.1
<b>Subtotal Capital Outlay Right-of-Way</b>		10.5	-	10.5	9.9	10.5	-
<b>Project Reserves</b>		12.1	(3.0)	9.1	-	0.3	(8.8)
<b>Total Carquinez Bridge Replacement Project</b>		<b>528.2</b>	<b>-</b>	<b>528.2</b>	<b>512.5</b>	<b>519.2</b>	<b>(9.0)</b>

## Notes:

Other Contracts includes EA's 01301\_, 01302\_, 01303\_, 01304\_, 01305\_, 01306\_, 01307\_, 01308\_, 01309\_, 0130A\_, 0130C\_, 0130D\_, 0130F\_, 0130G\_, 0130H\_, 0130J\_, 00453\_, 00493\_, 04700\_, 00607\_, 2A270\_, and 29920\_ and all Project Right-of-Way

Note: Details may not sum to totals due to rounding effects.



## Appendix E: Regional Measure 1 Program Cost Detail (\$ Millions) (Continued)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (02/2009)	Cost To Date (02/2009)	Cost Forecast (02/2009)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation</b>							
	See note <sup>1</sup> below						
Capital Outlay Support							
BATA Funding		2.2	-	2.2	1.4	2.2	-
Non-BATA Funding		8.6	-	8.6	10.4	10.4	1.8
Subtotal		10.8	-	10.8	11.8	12.6	1.8
Capital Outlay Construction							
BATA Funding		40.2	-	40.2	33.4	33.4	(6.8)
Non-BATA Funding		51.1	-	51.1	51.1	51.1	-
Subtotal		91.3	-	91.3	84.5	84.5	(6.8)
Project Reserves		-	-	-	-	-	-
<b>Total</b>		<b>102.1</b>	<b>-</b>	<b>102.1</b>	<b>96.3</b>	<b>97.1</b>	<b>(5.0)</b>
<b>Richmond-San Rafael Bridge Deck Overlay Rehabilitation</b>							
	04152_						
Capital Outlay Support							
BATA Funding		4.0	(0.4)	3.6	3.3	3.6	-
Non-BATA Funding		4.0	(4.0)	-	-	-	-
Subtotal		8.0	(4.4)	3.6	3.3	3.6	-
Capital Outlay Construction		16.9	3.6	20.5	16.3	16.2	(4.3)
Project Reserves		0.1	0.8	0.9	-	5.2	4.3
<b>Total</b>		<b>25.0</b>	<b>-</b>	<b>25.0</b>	<b>19.6</b>	<b>25.0</b>	<b>-</b>
<b>Richmond Parkway Project (RM 1 Share Only)</b>							
	Non-Caltrans						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay Construction		5.9	-	5.9	4.3	5.9	-
<b>Total</b>		<b>5.9</b>	<b>-</b>	<b>5.9</b>	<b>4.3</b>	<b>5.9</b>	<b>-</b>
<b>San Mateo-Hayward Bridge Widening</b>							
	See note <sup>2</sup> below						
Capital Outlay Support		34.6	(0.3)	34.3	34.1	34.3	-
Capital Outlay Construction		180.2	-	180.2	174.1	176.2	(4.0)
Capital Outlay Right-of-Way		1.5	-	1.5	0.5	0.6	(0.9)
Project Reserves		1.5	0.3	1.8	-	0.8	(1.0)
<b>Total</b>		<b>217.8</b>	<b>-</b>	<b>217.8</b>	<b>208.7</b>	<b>211.9</b>	<b>(5.9)</b>
<b>I-880/SR-92 Interchange Reconstruction</b>							
	EA's 23317_, 01601_, and 01602_						
Capital Outlay Support		28.8	26.2	55.0	45.5	55.0	-
Capital Outlay Construction							
BATA Funding		85.2	60.2	145.4	56.7	145.4	-
Non-BATA Funding		9.6	-	9.6	-	9.6	-
Subtotal		94.8	60.2	155.0	56.7	155.0	-
Capital Outlay Right-of-Way		9.9	7.0	16.9	11.6	16.9	-
Project Reserves		0.3	17.8	18.1	-	18.1	-
<b>Total</b>		<b>133.8</b>	<b>111.2</b>	<b>245.0</b>	<b>113.8</b>	<b>245.0</b>	<b>-</b>
<b>Bayfront Expressway Widening</b>							
	EA's 00487_, 01511_, and 01512_						
Capital Outlay Support		8.6	(0.3)	8.3	8.3	8.2	(0.1)
Capital Outlay Construction		26.5	-	26.5	24.9	26.5	-
Capital Outlay Right-of-Way		0.2	-	0.2	0.2	0.2	-
Project Reserves		0.8	0.3	1.1	-	1.1	-
<b>Total</b>		<b>36.1</b>	<b>-</b>	<b>36.1</b>	<b>33.4</b>	<b>36.0</b>	<b>(0.1)</b>
<b>US 101/University Avenue Interchange Modification</b>							
	Non-Caltrans						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay Construction		3.8	-	3.8	3.7	3.8	-
<b>Total</b>		<b>3.8</b>	<b>-</b>	<b>3.8</b>	<b>3.7</b>	<b>3.8</b>	<b>-</b>
<b>Subtotal BATA Capital Outlay Support</b>		<b>358.3</b>	<b>55.0</b>	<b>413.3</b>	<b>396.3</b>	<b>412.9</b>	<b>(0.4)</b>
<b>Subtotal BATA Capital Outlay Construction</b>		<b>1,569.8</b>	<b>231.0</b>	<b>1,800.8</b>	<b>1,640.3</b>	<b>1,785.8</b>	<b>(15.0)</b>
<b>Subtotal Capital Outlay Right-of-Way</b>		<b>42.5</b>	<b>6.9</b>	<b>49.4</b>	<b>39.2</b>	<b>48.5</b>	<b>(0.9)</b>
<b>Subtotal Non-BATA Capital Outlay Support</b>		<b>14.0</b>	<b>1.2</b>	<b>15.2</b>	<b>16.7</b>	<b>17.0</b>	<b>1.8</b>
<b>Subtotal Non-BATA Capital Outlay Construction</b>		<b>92.4</b>	<b>9.5</b>	<b>101.9</b>	<b>82.9</b>	<b>101.9</b>	<b>-</b>
<b>Project Reserves</b>		<b>35.6</b>	<b>20.2</b>	<b>55.8</b>	<b>-</b>	<b>50.3</b>	<b>(5.5)</b>
<b>Total RM1 Program</b>		<b>2,112.6</b>	<b>323.8</b>	<b>2,436.4</b>	<b>2,175.4</b>	<b>2,416.4</b>	<b>(20.0)</b>

Notes:

<sup>1</sup> Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Includes Non-TBSRA Expenses for EA 0438U\_ and 04157\_

Note: Details may not sum to totals due to rounding effects.

## Appendix F: Glossary of Terms

**AB144/SB 66 BUDGET:** The planned allocation of resources for the Toll Bridge Seismic Retrofit Program, or subordinate projects or contracts, as provided in Assembly Bill 144 and Senate Bill 66, signed into law by Governor Schwarzenegger on July 18, 2005 and September 29, 2005, respectively.

**BATA BUDGET:** The planned allocation of resources for the Regional Measure 1 Program, or subordinate projects or contracts as authorized by the Bay Area Toll Authority as of June 2005.

**APPROVED CHANGES:** For cost, changes to the AB144/SB 66 Budget or BATA Budget as approved by the Bay Area Toll Authority Commission. For schedule, changes to the AB 144/SB 66 Project Complete Baseline approved by the Toll Bridge Program Oversight Committee, or changes to the BATA Project Complete Baseline approved by the Bay Area Toll Authority Commission.

**CURRENT APPROVED BUDGET:** The sum of the AB144/SB66 Budget or BATA Budget and Approved Changes.

**COST TO DATE:** The actual expenditures incurred by the program, project or contract as of the month and year shown.

**COST FORECAST:** The current forecast of all of the costs that are projected to be expended so as to complete the given scope of the program, project, or contract.

**AT COMPLETION VARIANCE or VARIANCE (cost):** The mathematical difference between the Cost Forecast and the Current Approved Budget.

**AB 144/SB 66 PROJECT COMPLETE BASELINE:** The planned completion date for the Toll Bridge Seismic Retrofit Program or subordinate projects or contracts.

**BATA PROJECT COMPLETE BASELINE:** The planned completion date for the Regional Measure 1 Program or subordinate projects or contracts.

**PROJECT COMPLETE CURRENT APPROVED SCHEDULE:** The sum of the AB144/SB66 Project Complete Baseline or BATA Project Complete Baseline and Approved Changes.

**PROJECT COMPLETE SCHEDULE FORECAST:** The current projected date for the completion of the program, project, or contract.

**SCHEDULE VARIANCE or VARIANCE (schedule):** The mathematical difference expressed in months between the Project Complete Schedule Forecast and the Project Complete Current Approved Schedule.

**% COMPLETE:** % Complete is based on an evaluation of progress on the project, expenditures to date, and schedule.



Appendix G: Project Progress Photographs

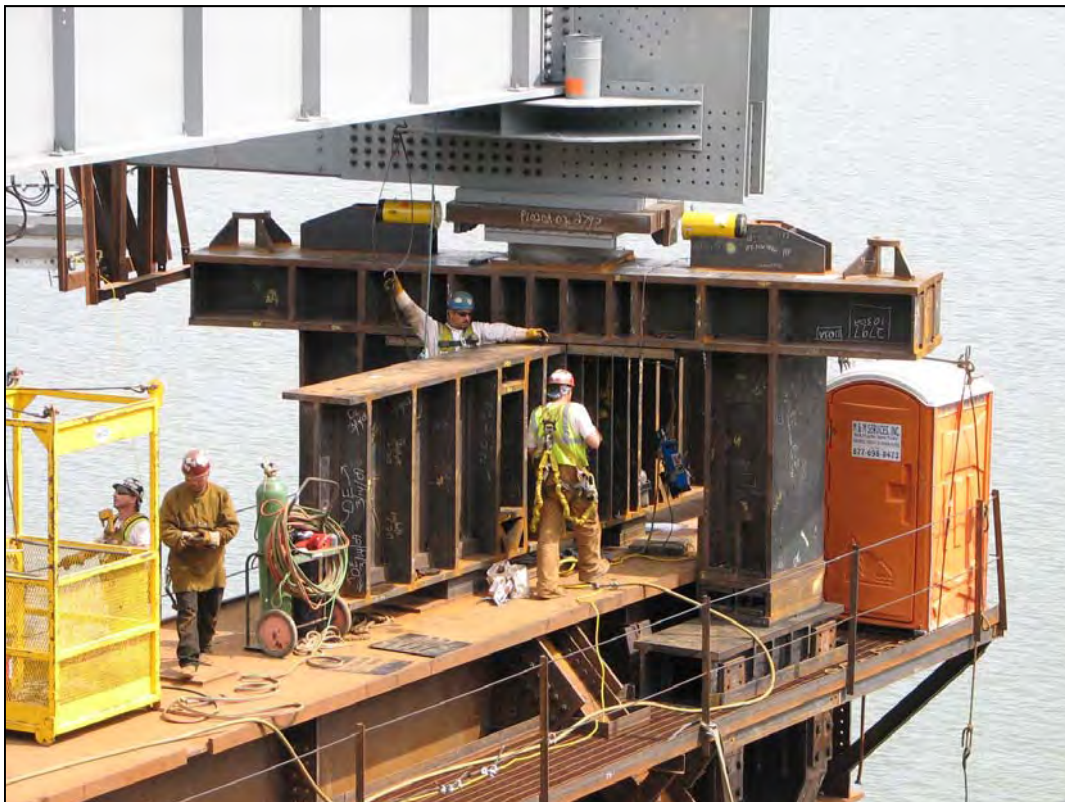


## Appendix G: Project Progress Photographs

### Yerba Buena Island Detour



Temporary Towers Looking from W2 to the East



East Tie-In Truss Structure Support





East Tie-in Skid Bent System Framing



East Tie-in Skid Beams and Truss Supports



## Appendix G: Project Progress Photographs

### Self-Anchored Suspension Bridge Fabrication



CB1 Assembly in Bay 1



Bike Path Bracket Assembly in Bay 5





Overview of 1 BW Assembly in Bay 13



Overview of East Jig in Bay 14

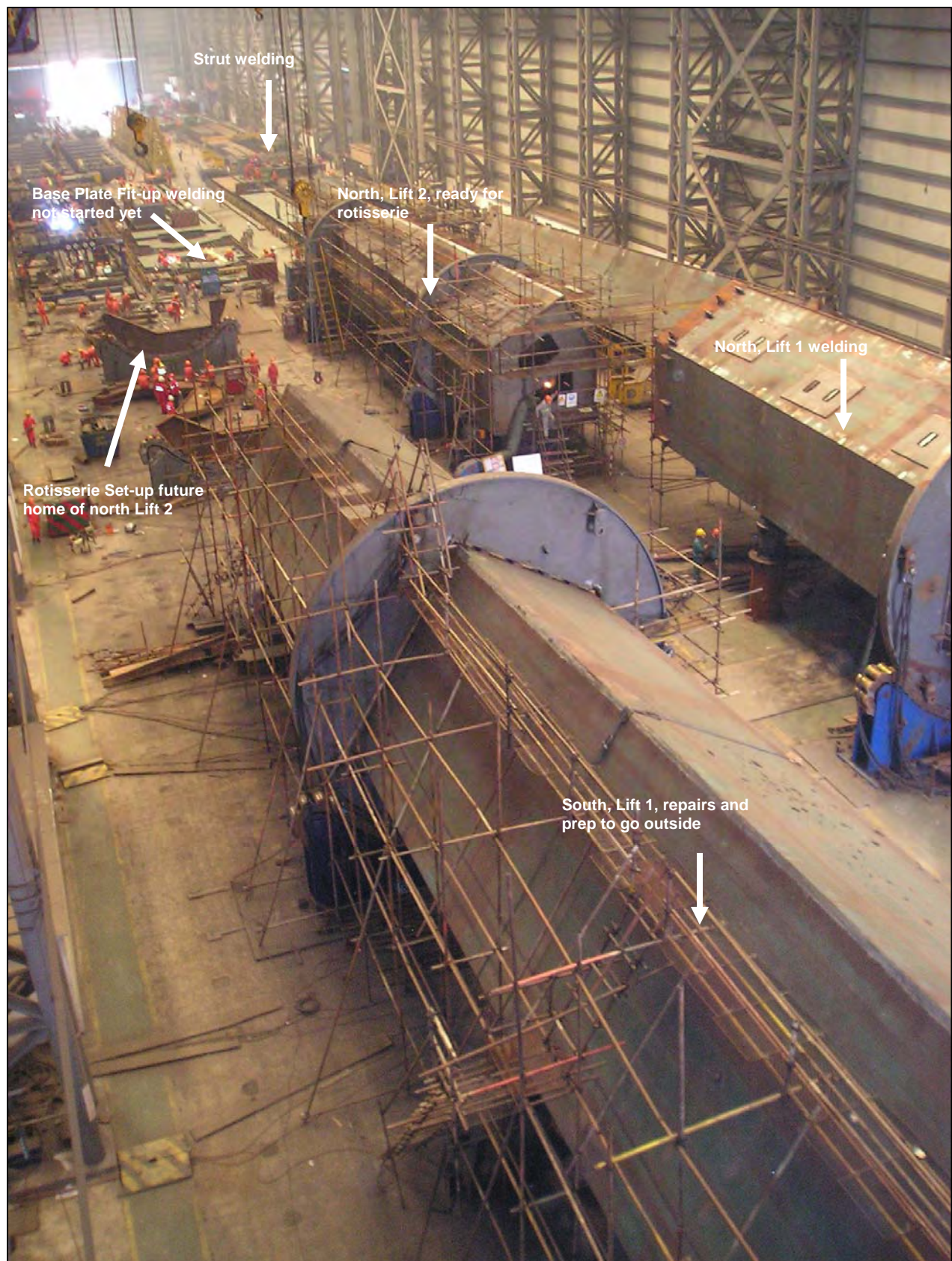


## Appendix G: Project Progress Photographs

### Self-Anchored Suspension Bridge Fabrication









## Appendix G: Project Progress Photographs

### Oakland Touchdown



**Westbound Precast Panels Installed**



**Completed Frame Two Pre-Stressing**





OTD #1 Westbound Barrier Lighting Conduit and Poles Installation

## Appendix G: Project Progress Photographs

### 92/880 Interchange



Work at Eldridge Avenue



Work at Eldridge Avenue





Overview of 92/880 Interchange

*The following information is provided in accordance with California Government code Section 755. This document is one of a series of reports prepared for the Bay Area Toll Authority (BATA)/Metropolitan Transportation Commission (MTC) for the Toll Bridge Seismic Retrofit and Regional Measure 1 Programs. The contract value for the monitoring efforts, technical analysis, and field site works that contribute to these reports, as well as the report preparation and production, is \$1,574,873.73.*

## *Memorandum*

**TO:** Toll Bridge Program Oversight Committee (TBPOC)      **DATE:** April 29, 2009

**FR:** Program Management Team

**RE:** Agenda No. - 4a1

Item- San Francisco-Oakland Bay Bridge Updates  
Self-Anchored Suspension (SAS) Superstructure  
TBPOC / ABF Mitigation and Acceleration Update

---

**Recommendation:**

For Information Only

**Cost:**

N/A

**Schedule Impacts:**

N/A

**Discussion:**

On May 7, the PMT will lead a discussion with the TBPOC on recent developments following the TBPOC response to the ABF proposal.

**Attachment(s):**

N/A



## *Memorandum*

**TO:** Toll Bridge Program Oversight Committee (TBPOC)      **DATE:** April 29, 2009

**FR:** Tony Anziano, Toll Bridge Program Manager, Caltrans

**RE:** Agenda No. - 4b1

Item- San Francisco-Oakland Bay Bridge Updates  
Yerba Buena Island (YBI) Detour  
East Tie-In (ETI) Update

---

**Recommendation:**

For Information Only

**Cost:**

N/A

**Schedule Impacts:**

N/A

**Discussion:**

A verbal update on the status of the Yerba Buena Island (YBI) Detour East Tie-In (ETI) will be provided at the meeting.

**Attachment(s):**

N/A

## *Memorandum*

**TO:** Toll Bridge Program Oversight Committee (TBPOC)      **DATE:** April 29, 2009

**FR:** Dina Noel, Assistant Deputy Director, CTC

**RE:** Agenda No. - 4b2  
Item- San Francisco-Oakland Bay Bridge Updates  
Yerba Buena Island Detour Contract Change Order 134

---

**Recommendation:**  
**APPROVAL**

**Cost:**  
\$2,300,924.00

**Schedule Impacts:**  
N/A

**Discussion:**

**Contract Change Order 134** - in the amount of \$2,300,924 deletes Item No. 78, electrical work in the amount of \$1,000,000, from the contract plans in exchange for paying the contractor a lump sum of \$3,300,924. This request compensates the contractor for the extra work needed to incorporate all the design changes that took place after contract award impacting the original electrical system installation plan for the Yerba Buena Island Detour.

This CCO will be funded through the available contingency balance.

**Attachment(s):**

1. Draft CCO 134
2. Draft CCO 134 Memorandum
3. YBI Detour CCO Implementation Strategy

**CONTRACT CHANGE ORDER**

Change Requested by: Engineer

<b>CCO 134</b>	<b>Suppl. No. 0</b>	<b>Contract No. 04 - 0120R4</b>	<b>Road SF-80-12.6/13.2</b>	<b>FED. AID LOC.: ACBRIM-080-1(097)N</b>
----------------	---------------------	---------------------------------	-----------------------------	--

**To: CC MYERS INC**

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. **NOTE: This change order is not effective until approved by the Engineer.**

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

**Estimate of Decrease in Contract Item at Contract Price:**

Item No. 78: ELECTRICAL WORK (STAGE 2)

-1 LS	(-100.00%)	,000,000.00 /LS	= -\$1,000,000.00	( -100.00%)
-------	------------	-----------------	-------------------	-------------

Estimated total cost for Decrease in Contract Item.....(\$1,000,000.00)

In accordance with Section 4-1.03B(3), "Eliminated Items," of the Standard Specifications, the adjustment due to the elimination of Item #78, Electrical Work (Stage 2), is zero.

**Extra Work at Lump Sum:**

As authorized by the Engineer and as shown on Sheets 3 to 78 of this change order, perform all electrical work on the Temporary Bypass Structure (TBS).

For this work, the contractor will be paid the sum of \$ 3,300,924.00, which constitutes full compensation, including materials, labor, incidentals, and markups, for this change.

Total cost of Extra Work at Lump Sum .....\$3,300,924.00

Estimated Cost: Increase ☒ Decrease ☐ **\$2,300,924.00**

By reason of this order the time of completion will be adjusted as follows: 0 days

**Submitted by**

<b>Signature</b>	<b>Resident Engineer</b> BILL CASEY	<b>Date</b>
------------------	--	-------------

**Approval Recommended by**

<b>Signature</b>	<b>Area Construction Manager</b> DEANNA VILCHECK	<b>Date</b>
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**Engineer Approval by**

<b>Signature</b>	<b>SFOBB Construction Manager</b> MIKE FORNER	<b>Date</b>
------------------	--	-------------

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

**NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.**

**Contractor Acceptance by**

<b>Signature</b>	<b>(Print name and title)</b>	<b>Date</b>
------------------	-------------------------------	-------------



**CONTRACT CHANGE ORDER MEMORANDUM**

DATE: 3/17/2009 Page 1 of 2

TO: MIKE FORNER / DEANNA VILCHECK			FILE: <b>E.A.</b> 04 - 0120R4	
FROM: BILL CASEY			<b>CO-RTE-PM</b> SF-80-12.6/13.2	
			<b>FED. NO.</b> ACBRIM-080-1(097)N	
CCO#: <b>134</b>	SUPPLEMENT#: <b>0</b>	Category Code: <b>AXZZ</b>	CONTINGENCY BALANCE (incl. this change) <b>\$58,997,845.55</b>	
COST: <b>\$2,300,924.00</b> INCREASE <input checked="" type="checkbox"/> DECREASE <input type="checkbox"/>			HEADQUARTERS APPROVAL REQUIRED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
SUPPLEMENTAL FUNDS PROVIDED: <b>\$0.00</b>			IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
<b>CCO DESCRIPTION:</b> Electrical Work			<b>PROJECT DESCRIPTION:</b> CONSTRUCT ROUTE 80 TEMP BYPASS STRUCTURE	
Original Contract Time: <b>475</b> Day(s)	Time Adj. This Change: <b>0</b> Day(s)	Previously Approved CCO Time Adjustments: <b>1195</b> Day(s)	Percentage Time Adjusted: (including this change) <b>252</b> %	Total # of Unreconciled Deferred Time CCO(s): (including this change) <b>7</b>

**THIS CHANGE ORDER PROVIDES FOR:**

Performing all electrical work as shown on Sheets 1 to 78 of the change order.

The Temporary Bypass Structure (TBS), encompasses three main structures, the East Tie-In (ETI) to the existing bridge, the West Tie-In (WTI) to Yerba Buena Island and the Viaduct structure between the two tie ins. The contract was bid, with an A + B specification, to be completed in 475 calendar days and was awarded in March of 2004. The anticipated completion was the summer of 2005.

Two separate Department strategy memorandums, issued on December 14, 2006 and December 25, 2006, and approved by Tony Anziano - Toll Bridge Program Manager, Richard Land - Chief Engineer, and the Toll Bridge Program Oversight Committee (TBPOC), extended the project completion date and resulted in the following changes to the project scope:

- 1) The retrofit of a 350-foot section of the concrete deck approaching the Yerba Buena Tunnel was re-sequenced to be performed within the TBS project as opposed to after the completion of the project.
- 2) The responsibility for the design of both the WTI and ETI structures were taken from the contractor and assumed by the Department.
- 3) Numerous design enhancements were ordered to the Viaduct in order to create a stand-alone structure.
- 4) Significant portions of the foundation and substructure work of the future Yerba Buena Island Transition Structure (YBITS) contract were incorporated into this project.

The four items above required changes to Contract Bid Item No. 78, Electrical Work (Stage 2), which not only increased the amount of electrical work to be performed but also extended the completion date of the work as originally contemplated. In addressing this issue the Department assumed electrical design responsibility and issued revised electrical plans for the TBS.

Contract Bid Item No. 78 in the amount of \$1,000,000.00 will be deleted from the Contract. The Contractor will be compensated for the Departments revised electrical work at an agreed lump sum of \$3,300,924.00. The net change order cost of \$2,300,924.00 shall be financed from the projects contingency funds. A cost analysis for this agreed lump sum is on file in the project records.

No adjustment of contract time is warranted, as the work will not affect the controlling operation.

Alec Melkonians - Toll Bridge Project Manager and Hong Wong - Project Engineer, concurred with this change.

**CONTRACT CHANGE ORDER MEMORANDUM**

EA: 0120R4 CCO: 134 - 0

DATE: 3/17/2009

Page 2 of 2

<b>CONCURRED BY:</b>			<b>ESTIMATE OF COST</b>										
Construction Engineer:	Mahantesh Anigol - Sr. TE	Date	THIS REQUEST	TOTAL TO DATE									
Bridge Engineer:		Date	ITEMS	(\$1,000,000.00)	(\$1,000,000.00)								
Project Engineer:	Hong Wong, PE	Date 3/17/09	FORCE ACCOUNT	\$0.00	\$0.00								
Project Manager:	Alec Melkonians	Date 3/18/09	AGREED PRICE	\$3,300,924.00	\$3,300,924.00								
FHWA Rep.:		Date	ADJUSTMENT	\$0.00	\$0.00								
Environmental:		Date	<b>TOTAL</b>	\$2,300,924.00	\$2,300,924.00								
Other (specify):		Date	<b>FEDERAL PARTICIPATION</b>										
Other (specify):		Date	<input type="checkbox"/> PARTICIPATING <input type="checkbox"/> PARTICIPATING IN PART <input checked="" type="checkbox"/> NONE <input type="checkbox"/> NON-PARTICIPATING (MAINTENANCE) <input type="checkbox"/> NON-PARTICIPATING										
District Prior Approval By:		Date	FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)										
HQ (Issue/Approve) By:		Date	<input type="checkbox"/> CCO FUNDED PER CONTRACT <input type="checkbox"/> CCO FUNDED AS FOLLOWS										
Resident Engineer's Signature:		Date	<table border="0"> <tr> <td>FEDERAL FUNDING SOURCE</td> <td>PERCENT</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> </table>			FEDERAL FUNDING SOURCE	PERCENT	_____	_____	_____	_____	_____	_____
FEDERAL FUNDING SOURCE	PERCENT												
_____	_____												
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**South-South Detour, Contract No. 04-0120R4**  
**Contract Change Order Implementation Strategy**  
**May 7, 2009**

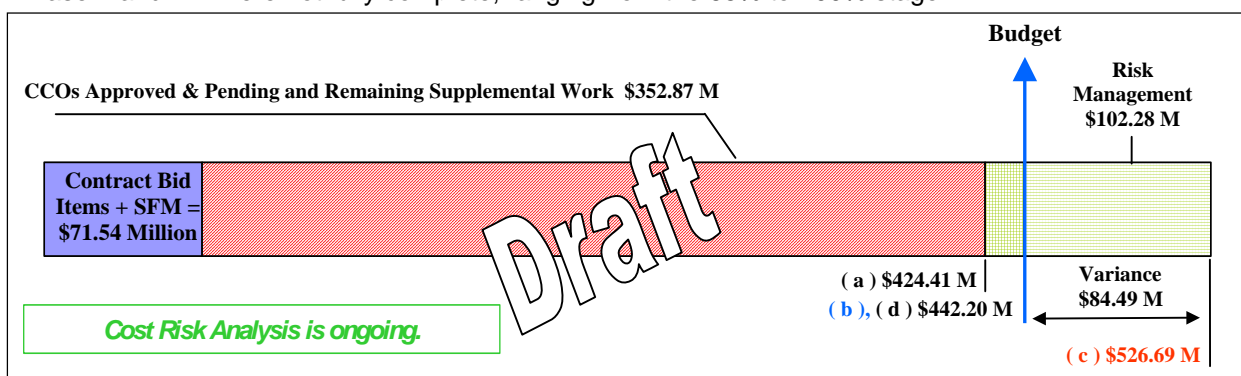
**DRAFT**

South-South Detour (Contract 04-0120R4)			
Contract Award:	March 10 <sup>th</sup> , 2004	Suspension Days:	302 Working Days
Original Working Days:	475 Working Days	Contract Extensions:	1195 Working Days
Original Contract Completion:	July 27th, 2005	Projected Contract Completion:	April 30, 2010

## Introduction

Two memos were developed to outline a strategy for a revised SSD project that enhanced SSD viaduct design, developed tie-in design (east and west) in-house, improved the retrofit of the YBI viaduct (replacing the top deck of the viaduct rather than retrofitting in place) and advanced and incorporated select YBITS foundation work. The two memos are "San Francisco-Oakland Bay Bridge Corridor Schedule Mitigation – Strategy for South-South Detour Contract Completion" issued December 14, 2006, and "Recommendation to Construct Select Yerba Buena Island Transition Structure Foundations by Contract Change Order" issued on December 25, 2006. This strategy will result in substantial increases in the cost of the SSD project.

As approved at the March 2008 TBPOC meeting the revised budget for the SSD Project is 442.2M. This figure was established using available information as of January 2008 noting that the plans and specifications for the WTI Phase 2 and ETI were not fully complete, ranging from the 65% to 100% stage.



## Scope of Work for SSD

The revisions to the original scope of work currently associated with the South-South Detour Project have been assigned into the following categories with their associated estimated cost:

Category	Scope of Work	Current Budget (March 2008)	In Progress Status Update from March 08 Approved Budget	
			Current	Delta
(0)	Original Bid Items, Baseline CCOs (1 through 48), and State Furnished Materials	\$83.7	\$83.7	\$0
(1)	SSD New Viaduct	\$31.9	\$37.0	\$5.1
(2a)	West Tie-In Existing Viaduct Phase 1	\$39.6	\$40.1	\$0.5
(2b)	West Tie-In Phase 2	\$15.0	\$20.9	\$5.9
(3)	East Tie-In	\$72.5	\$109.1	\$36.6
(4)	YBI Transition Structures Advance Foundations	\$105.8	\$104.6	(\$1.2)
(5)	Administrative Issues and General CCOs	\$48.6	\$33.6	(\$15.0)
<b>Subtotal</b>		<b>\$397.1</b>	<b>\$429</b>	<b>\$31.9</b>
<b>Contingency</b>		<b>\$45.1</b>	<b>\$13.2</b>	
<b>Approved Budget</b>		<b>\$442.2</b>		

Contract payments as of April 20, 2009: \$320.3M

As shown, the current status of CCOs required to modify the original scope of the SSD work as defined in Categories 1 through 5 is \$345.3M. The status of each category of work is discussed in the succeeding pages of this report.



**South-South Detour, Contract No. 04-0120R4**  
**Contract Change Order Implementation Strategy**  
**May 7, 2009**

**DRAFT**

**Bid Items, Baseline CCOs, & State Furnished Material**

**0**

The break down of Category (0) is as follows:

Original Contract Amount	\$ 71.2 million
Baseline CCOs (1 through 48)	\$ 12.1 million
State Furnished Materials	\$ 0.4 million
<b>Total</b>	<b>\$ 83.7 million</b>

**Baseline Contract Change Orders (1 through 48)**

CCO #	Description	Executed Date	Cost
1	Flagging and Traffic Control	5/13/2004	\$100,000.00
1S1	Additional Funds for Flagging and Traffic Control	2/9/2007	\$200,000.00
2	Bidder Compensation	5/8/2004	\$1,575,000.00
3	Partnering	9/7/2004	\$25,000.00
4	DRB	9/7/2004	\$100,000.00
5	Federal Trainee Program	11/12/2004	\$20,000.00
5S1	Non-Journey Person Training	3/10/2005	\$50,000.00
6	Removal of DBE/SBE Monitoring	2/10/2005	\$0.00
7	Sampling and Analysis Work	8/30/2004	\$30,000.00
8	SWPPP Maintenance Sharing	8/30/2004	\$75,000.00
9	Additional Photo Survey/Public Relations	9/14/2004	\$50,000.00
10	Temporary Shuttle Van Service	7/16/2004	\$650,000.00
10S1	Additional Funds for Temporary Shuttle Van Service	6/23/2005	\$100,000.00
10S2	Additional Funds for Temporary Shuttle Van Service	1/12/2007	\$500,000.00
11	Utility Potholing	9/14/2004	\$100,000.00
12	Just-In-Time Training (RSC Pavement)	2/10/2005	\$5,000.00
13	PMIV Document Management System	11/3/2004	\$486,743.50
14	Temporary Suspension	5/19/2004	\$0.00
15	Archaeology Investigation	7/19/2004	\$30,000.00
15S1	Additional Funds for Archaeology Investigation	4/22/2005	\$15,000.00
16	Roadway Profile at WTI	Voided	N/A
17	Modify Drainage at G4 Entry Vault	10/24/2006	\$108,217.45
18	Access Control Measures	9/8/2004	\$50,000.00
19	EDR1 Alignment Modification	5/12/2005	\$0.00
20	A490 Bolts	10/23/2006	\$0.00
21	Removal /Disposal of Stairway	4/13/2005	\$14,060.00
22	Clean Stairs and Walkways	5/24/2005	\$35,000.00
22S1	Additional Funds for Cleaning Stairs and Walkways	11/24/08	\$25,000.00
23	Shared Field Data System (ShareArchive)	Voided	N/A
24	East and West Tie-In Temporary Suspension	2/1/2005	\$2,181,467.40
<b>Total for Baseline Contract Change Orders</b>			<b>\$12,107,527</b>

CCO #	Description	Executed Date	Cost
24S1	Read Inclinometer/Adjust Equipment Costs	10/18/2005	\$29,782.99
24S2	Temporary Suspension Partially Extended	5/2/2006	\$4,812,631.58
24S3	Contract Days Extension/TRO Compensation	Voided	N/A
25	Bent 48, 49R, 52R Outside Boundary	3/24/2005	(\$19,000.00)
26	Bent 48 Articulation	4/22/2005	\$0.00
27	Bent 52L Footing Conflict	1/19/2006	\$94,386.51
28	Hydroseed Around W2 Columns	3/24/2005	\$20,000.00
29	Replacement of Surveillance Camera	3/24/2005	\$3,542.00
30	Additional Elastic Response Analysis	5/31/2005	\$10,700.00
31	Soil Analysis Outside Plan Limits	6/27/2005	\$20,000.00
32	SFPUC Permit Specification Change	5/17/2005	\$0.00
33	Design Enhancements	Voided	N/A
34	Pole Structure Welding Specification Revision	9/30/2005	\$0.00
35	Revision of East Tie-In Design Criteria	Voided	N/A
36*	Extend Limits of Viaduct Demolition	Voided	N/A
37	4 Hr Emergency Travel Way	Voided	N/A
37S1	Emergency Travel Way Falsework	Voided	N/A
38	Revision of West Tie-In Design Criteria	8/4/2005	\$0.00
39	Provide Shuttle Service to USCG	6/27/2005	\$10,000.00
40	Sewer Pipe Material Change	9/26/2005	\$1,561.95
41	Bent 49L Utility Relocation	Voided	N/A
42	Bent 48R Pile Load Test	9/12/2005	\$20,000.00
42S1	Bent 52R Pile Load Test	12/15/2005	\$5,000.00
43	Material On Hand Specification Change	9/16/2005	\$75,953.88
43S1	Addition of YBITS Advance to Material On Hand	Voided	N/A
44	Electrical Call Box Relocation		\$47,480
45	Additional SWPPP	2/21/2006	\$250,000.00
46	Southgate Road Reopening	3/8/2006	\$50,000.00
47	Hazardous/Non-Hazardous Soil Removal	12/15/2005	\$100,000.00
48	Buried Man-Made Objects	12/15/2005	\$50,000.00
			<b>\$12,107,527</b>

- The scope of work for CCO No. 36 was completed and compensated for under the larger scope of CCO No. 76.

**South-South Detour, Contract No. 04-0120R4**  
**Contract Change Order Implementation Strategy**  
**May 7, 2009**

**DRAFT**

**SSD New Viaduct**

**1**

Progress of Work

Construction of foundations, columns, and bent caps is complete. Fabrication of the structural steel truss, performed by Dongkuk S&C in South Korea, is complete with all steel having arrived in the U.S.. All Viaduct steel has been erected into place. Concrete has been poured for both upper and lower decks in Spans 48, 49, and 50. Deck construction is ongoing in and Span 51.

Status of Contract Change Orders: SSD New Viaduct:

CCO	Method of Payment	Description	HQ Status	TBPOC Status	CCO Status	Current Estimate/ Actual Cost	Change from March 08 Approved Budget
49	LS	Stringer and Floor Beam Design Study	N/A	N/A	Executed 5/2/2006	\$109,182	N/A
49S1	FA	Truss Design Modifications (Changes to Stringer and Floor Beam Connections)	I&A 12/08/06	N/A	Executed 8/17/2006	\$150,000	N/A
49S2	FA		I&A 12/08/06	N/A	Executed 12/18/2006	\$100,000	N/A
Subtotal (CCO #49 and Supplements)						\$359,182	
50	FA	Stand Alone Viaduct Design	N/A	N/A	Executed 5/8/2006	\$325,000	N/A
50S1	FA		I&A 9/21/06	N/A	Executed 10/16/2006	\$300,000	N/A
50S2	FA		I&A 12/08/06	N/A	Executed 12/18/2006	\$100,000	N/A
50S3	FA		I&A 2/09/07	N/A	Executed 2/13/07	\$175,000	N/A
Subtotal (CCO #50 and Supplements)						\$900,000	
54	LS	Deck Drainage	N/A	N/A	Executed 5/2/07	\$8,000	N/A
55	LS	Viaduct Fabricator Change (SGT Closeout)	I&A 7/08/07	Approved 6/27/07	Executed 8/7/07	\$5,665,330	N/A
55S1	LS	SGT Fabrication Closeout - Dongkuk Materials	I&A 1/24/08	Approved 3/5/08	Executed 3/17/08	\$980,600	\$70,600
59	LS	Water Blast Rebar Cages	N/A	N/A	Executed 2/22/07	\$5,000	N/A
59S1	LS	Additional funds, Water Blast Rebar Cages	N/A	N/A	Executed 11/24/08	\$5,000	\$5,000
60	LS	Construction of Bent Caps	I&A 6/13/07	Approved 6/27/07	Executed 6/18/07	\$7,435,950	N/A
67	FA	Viaduct/ETI Interface Modifications (Design Cost)	I&A 5/14/07	N/A	Executed 9/27/07	\$800,000	N/A
79	LS	Fabrication Cost for Viaduct Design Changes July '05 - October '06	I&A 7/19/07	N/A	Executed 8/7/07	\$803,400	N/A
79S1	LS	Fabrication Cost for Viaduct Design Changes - July 05-Oct 06	I&A 6/13/08	N/A	Executed 8/4/08	\$75,860	(\$174,140)
80	LS	Erection Costs for Viaduct Design Changes through October 2006	N/A	Approved 1/31/08	Executed 2/20/08	\$6,912,200	N/A
82	FA	AC Paving and Erosion Control for Deck Drainage		N/A	In progress	\$250,000	\$0
85	LS	Design of 300mm Waterline Relocation	N/A	N/A	Executed 3/17/08	\$12,480	\$1,994
87	LS	Viaduct Shipping Escalation Costs	I&A 7/24/07	N/A	Executed 10/2/07	\$534,570	N/A
87S1	LS	Viaduct Shipping Escalation Costs	I&A 1/14/08	N/A	Executed 1/30/08	\$200,000	N/A
88	LS	Viaduct Fabrication Delays	I&A 7/19/07	N/A	Executed 8/7/07	\$954,460	N/A
88S1	LS	Viaduct Fabrication Delays	I&A 8/22/07	N/A	Executed 9/27/07	\$776,630	N/A
98	FA/LS	Viaduct Steel Storage and Handling Cost	I&A 5/30/08	N/A	Executed 6/18/08	\$845,370	\$345,370
99	LS	Viaduct Erection Costs (Post Oct. 2006)	I&A 4/17/08	N/A	Executed 5/22/08	\$862,614	(\$139,716)

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100	FA	Viaduct Fabrication Costs (Post Oct. 2006)	I&A 1/22/08	N/A	Executed 1/28/08	\$650,000	N/A
105	FA/LS	Dongkuk Fabrication and Temp Bracing Fabrication Costs (July 2007 Plans)	I&A 4/2/08	Approved 4/3/08	Executed 4/17/08	\$2,140,640	\$690,640
106		CCO Voided...previous scope of work was incorporated into CCO 105				-	-
107	LS	Furnish and Drive Erection Tower Falsework Piles	I&A 8/07/08	N/A	Executed 10/02/08	\$855,190	\$355,190
111	FA/LS	USCG Parking Replacement and Protection	N/A	N/A	Executed 3/17/08	\$163,223	\$163,223
111S1	LS	Additional costs USCG Parking Lot	N/A	N/A	Executed 6/30/08	\$8,940	\$8,940
115	FA	Third VIA Shipping for CCO #67 July 07 plans	I&A 5/06/08	N/A	Executed 5/22/08	\$850,000	\$450,000
<b>128</b>		<b>Waterline Relocation (NOPC 6)</b>		<b>N/A</b>	<b>In progress</b>	<b>\$200,000</b>	<b>\$200,000</b>
133	-	Lightweight Conc. Mix Design Spec Change	N/A	N/A	Executed 9/12/08	\$0	\$0
<b>134</b>	<b>LS</b>	<b>60% of Project Wide Electrical Changes</b>		<b>TBD</b>	<b>In Progress</b>	<b>\$1,380,554</b>	<b>\$1,380,554</b>
135	LS	Rebar Deck Escalation Costs	I&A 11/09/08	N/A	Executed 1/28/09	\$995,100	\$495,100
136	FA/LS	Provide additional alternate entrance access to USCG Base	N/A	N/A	Executed 9/23/08	\$74,540	\$74,540
138	LS	Waterline Relocation for Fire Hydrant (Conflicts with Span 49 Falsework)	N/A	N/A	Executed 9/23/08	\$278,200	\$278,200
148	FA	USCG Road Canopy below Viaduct	I&A 8/27/08	N/A	Executed 9/23/08	\$500,000	\$500,000
152	LS	Relocate USCG Road for steel erection FW Towers at Span 51	I&A 1/06/09	N/A	Executed 2/4/09	\$336,420	\$186,420
156	LS	Span 49 F/W Conflict w/ USCG Utilities	N/A	N/A	Executed 9/23/08	\$180,820	\$180,820
<b>Current Forecast for SSD New Viaduct</b>						<b>\$37,000,273</b>	<b>\$5,072,735</b>

Budget Status

The Viaduct portion of the SSD was bid at \$26.74M. The projected additional costs in the December 14, 2006 Strategy Memorandum were estimated to be \$9M. The January 2008 revised additional cost estimate is \$31.9M with a current projection of \$37M. CCOs executed to date are \$35.2M.

**West Tie-In**

**Phase 1**

**2a**

Progress of Work

Phase 1 work was substantially complete with the move in of the Structure on September 03, 2007. Miscellaneous electrical and drainage work remain. WB On-ramp was reopened on August 8, 2008.

Status of Contract Change Orders: West Tie-In Existing Viaduct (Phase 1)

CCO	Method of Payment	Description	HQ Status	TBPOC Status	CCO Status	Current Estimate/ Actual Cost	Change from March 08 approved Budget
58	FA	Bridge Removal Plan	N/A	N/A	Executed 11/21/06	\$60,000	N/A
58 S1	FA	Bridge Removal Plan	N/A	N/A	Executed 7/05/07	\$40,000	N/A
61	FA	Advance Engineering (Work Plans and Submittals), Site Prep (Ramp Closures, Access Road), Civil Work (Grading), Structure Work (Material Procurement)	I&A 1/09/07	N/A	Executed 2/27/07	\$400,000	N/A
61S1	LS/FA	Construction of Stage 1 Area and Substructure	I&A 5/16/07	Approved 6/27/07	Executed 5/18/07	\$9,995,644	N/A



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66	FA	TMP - Video Equipment (WTI Phase 1)	N/A	N/A	Executed 7/20/07	\$175,000	N/A
68	FA	Temporary Electrical Work	N/A	N/A	Executed 7/20/07	\$140,000	N/A
68S1	FA	Temporary Electrical Work Stage 2, 3 & 4	I&A 12/02/07	N/A	Executed 10/31/07	\$510,000	N/A
72	LS	Structure Work (Superstructure), and Temporary Shuttle Service	I&A 7/19/07	Approved 7/27/07	Executed 7/20/07	\$11,096,900	N/A
76	LS	Labor Day Bridge Demolition and Move-In	I&A 7/19/07	Approved 7/27/07	Executed 7/20/07	\$2,240,300	N/A
76S1	LS	Labor Day Bridge Move-In (Changeable Message Signs, Temporary Signs, Traffic Control, Bridge Removal, Bridge Move-In, Paving and Roadway Repairs, CCM Support Costs, City Traffic Officers)	I&A 8/28/07	Approved 8/24/07	Executed 9/27/07	\$10,144,140	N/A
84	LS	Skid Track Foundations and Temporary Columns	I&A 7/27/07	Approved 7/27/07	Executed 7/31/07	\$3,980,000	N/A
101	LS	Reconstruct Slab, West Bound On-ramp	I&A 4/02/08	N/A	Executed 4/17/08	\$846,140	\$480,700
101S1	LS	WB Onramp Supplemental Work	I&A 1/06/09	N/A	Executed 2/4/09	\$149,560	
102	FA	North side Drainage Work	N/A	N/A	Executed 4/4/08	\$60,000	\$12,240
102S1	LS	Northside Drainage Work	N/A	N/A	In Progress	\$52,240	
103	LS	Labor Day Weekend Closure Misc. Costs	N/A	N/A	Executed 2/20/08	\$173,140	(\$26,860)
<b>Current Status for West Tie-In (Phase 1)</b>						<b>\$40,063,064</b>	<b>\$466,080</b>

Budget Status

The projected additional costs in the December 14, 2006 Strategy Memorandum were estimated to be \$40M. The January 2008 revised additional cost estimate is \$39.6M with a current projection of \$40.1M. CCOs executed to date are \$40M.

**West Tie-In**

**Phase 2**

**2b**

Progress of Work

Construction/Design coordination meetings with the Contractor are ongoing as needed. Foundation work and columns are complete. Superstructure for Frames 1 and 2 have been cast. Post tensioning and preparation for load transfer in progress.

Status of Contract Change Orders: West Tie-In (Phase 2)

CCO	Method of Payment	Description	HQ Status	TBPOC Status	CCO Status	Current Estimate/ Actual Cost	Change from March 08 Approved Budget
62	LS	Construction of Phase 2 Foundations and Credits for Elimination of Bid Items 12 and 90	I&A 2/29/08	Approved 4/4/08	Executed 4/7/08	(\$4,649,850)	\$309,150
71	LS	WTI Phase 2 Pile at Bent 46L/Slab Bridge Removal	I&A 7/24/07	N/A	Executed 7/20/07	\$384,130	N/A
108	LS	Substructure	I&A 6/20/08	Approved 6/18/08	Executed 6/25/08	\$5,378,800	\$720,800
117	FA	Surface Drainage (Southside)	N/A	N/A	Executed 1/6/09	\$150,000	(\$138,750)
134	LS	20% of Project Wide Electrical Changes		TBD	In Progress	\$460,185	(\$89,815)
141	LS/FA	Superstructure Construction	I&A 11/13/08	Approved 11/18/08	Executed 11/25/08	\$13,200,000	\$3,855,000
141S1		Superstructure Construction Completion Incentive (Release of Frame 1 Bent Cap FW)		TBD	In Progress	\$1,500,000	\$1,500,000
143		Civil Work (EB Onramp and Mainline)		TBD	In Progress	\$4,060,750	\$0
161	LS	T7-Line Detour	I&A 11/10/08	N/A	Executed 11/25/08	\$403,965	(\$283,535)
<b>Current Status for West Tie-In (Phase 2)</b>						<b>\$20,887,980</b>	<b>\$5,872,850</b>

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Budget Status

The Contractor's bid price for the West Tie-In was \$9.0M. Based on the Department's December 14, 2006 Strategy Memorandum, the costs associated with the Phase 2 West Tie-In work were estimated to be an additional \$13.0M. The January 2008 revised additional cost estimate is \$15.0M, with a current projection of \$20.9M. The January 2008 revision is based on complete foundation plans and 65% in progress substructure and superstructure plans. CCOs executed to date are \$14.9M.

**East Tie-In**

**3**

Progress of Work

Bent 52A and skid bent foundations design packages were delivered October 2007. ETI design plans for the skid bents and skid beams were delivered March 15, 2008 and truss plans were delivered April 7, 2008. Construction/Design Coordination meetings with the Contractor are ongoing.

Fabrication of the skid bent and skid beams took place at Thompson Metal Fab, Inc. in Vancouver, WA and the fabrication of the truss took place at Stinger Welding Inc. in Coolidge, AZ. All steel has arrived in the Bay Area and is in the process of being erected.

The existing SFPUC sanitary sewer pump station has been relocated with the new pump station up and running. Construction of the skid bent foundations is progressing on schedule. Lead abatement in span YB-4 of the existing truss is complete. Work on the bent cap at bent 52A is complete. Work on the crane runway trestle is complete. Erection of the Skid Bent towers and beams and truss are ongoing.

Status of Contract Change Orders: East Tie-In

CCO	Method of Payment	Description	HQ Status	TBPOC Status	CCO Status	Current Estimate/ Actual Cost	Change from March 08 Approved Budget
63	FA	Advance Engineering (Work Plans and Submittals)	I&A 8/22/07	N/A	Executed 9/27/07	\$800,000	N/A
69	LS	Procurement of Pump/Control Panel for Pump Station Relocation	N/A	N/A	Executed 10/10/07	\$111,280	N/A
69S1	LS	Construction for Pump and Control Panel for Relocated Pump Station	I&A 12/19/07	N/A	Executed 3/17/08	\$499,996	\$11,986
69S2	LS	Sewer Pump Electrical Changes	I&A 2/25/09	N/A	Executed 4/08/09	\$8,953	\$8,953
92	FA	ETI AT&T Fiber Optic Relocation	N/A	N/A	Executed 12/17/07	\$175,000	N/A
93	LS/FA	Lead Paint Mitigation Existing Truss (Span YB-4)	I&A 2/13/08	N/A	Executed 2/20/08	\$563,725	\$3,725
104	LS	Pier E-1 Access Towers	N/A	N/A	Executed 1/30/08	\$150,000	N/A
113	LS	Relocate Waterline in Conflict with Northern Skid Bent Footings	N/A	N/A	Executed 3/17/08	\$167,990	\$167,990
90	LS	Bent 52A and Skid Bent Footings and Credits for Eliminated Bid Items 10 and 42	I&A 3/26/08	Approved 4/4/08	Executed 4/14/08	\$11,308,380	<b>\$3,737,829</b>
97	FA	Bent 52A and Skid Bent Ftg's Material Procurement	I&A 11/06/07	N/A	Executed 11/19/07	\$850,000	
121	LS	Construct Stage 1 Soil Nail Wall, Upper East Tie-In area	N/A	N/A	Executed 3/17/08	\$142,670	
121S1	LS	Construct Stage 2 Soil Nail Wall, Upper East Tie-In area	N/A	N/A	Executed 3/18/09	\$518,130	
162	LS	Bent A3 Shoring	I&A 3/30/09	N/A	Executed 4/01/09	\$268,235	
		<b>Backfill at Stage 1 and 2 Wall Upper ETI Area</b>		<b>TBD</b>	<b>In Progress</b>	<b>\$1,751,404</b>	<b>(\$152,315)</b>
127	FA	RTU - 8 Service Platform	N/A	N/A	Executed 9/03/08	\$75,000	
134	LS	<b>20% of Project Wide Electrical Changes</b>		<b>N/A</b>	<b>In Progress</b>	<b>\$460,185</b>	
		<b>Roll-In Roll-Out, Install Joint Seals, Demolition, Existing Truss Strengthening, TMP, and Civil Work</b>		<b>TBD</b>	<b>In Progress</b>	<b>\$17,119,311</b>	<b>\$0</b>

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129	LS	Skid Bent and Truss Steel Erection	I&A 11/05/08	Approved 11/10/08	Executed 11/25/08	\$14,712,500	<b>\$7,517,651</b>
129S1	LS	Skid Bent and Truss Steel Erection Acceleration	I&A 3/09/09	Approved 3/5/09	In Progress	\$535,000	
<b>129S2</b>	<b>LS</b>	<b>Skid Bent and Truss Steel Erection Incentive</b>		<b>TBD</b>	<b>In Progress</b>	<b>\$1,177,000</b>	
179	LS	ETI Truss Steel Erection Falsework Foundations	I&A 4/20/09	N/A	Executed 4/08/09	\$312,000	\$114,490
137	LS	Pump station Water Tank Demo	N/A	N/A	Executed 6/26/08	\$114,490	
112	FA	Material Procure Skidbent (1532 Tower Legs)	I&A 1/10/08	Approved 2/4/08	Executed 2/19/08	\$2,000,000	
112S1	FA	Material Procure ETI Superstructure	I&A 3/03/08	Approved 3/5/08	Executed 3/17/08	\$8,500,000	<b>\$19,147,085</b>
112S2	FA	Material Procure ETI Temporary Bypass Structure	I&A 6/04/08	Approved 6/16/08	Executed 6/25/08	\$3,500,000	
112S3	FA	Material Procure - Additional Funds	I&A 10/31/08	Approved 11/13/08	Executed 11/25/08	\$3,000,000	
116	FA/LS	Fabricate Superstructure & Skidbent	I&A 6/04/08	Approved 6/16/08	Executed 8/8/08	\$14,166,180	
116S1	FA/LS	Skidbeam Design Modifications and Shipping Costs	I&A 12/19/08	Approved 12/23/08	Executed 2/3/09	\$1,896,750	
140	LS	Truss Steel Fabrication	I&A 9/04/08	Approved 9/04/08	Executed 9/23/08	\$10,920,525	
166	LS	Skid Bent & Beam Fabrication Acceleration	I&A 12/22/08	Verbal Approval 11/06/08 Approved 12/23/08	Executed 1/28/09	\$2,028,950	
<b>166S1</b>		<b>Skid Bent &amp; Beam Fabrication Incentive</b>		<b>Approved 12/23/08</b>	<b>In Progress</b>	<b>\$900,000</b>	<b>\$632,670</b>
<b>167</b>		<b>TMF - Shop Drawing Delay</b>		<b>N/A</b>	<b>In Progress</b>	<b>\$632,670</b>	
144	FA	Expansion Joint Mock-up	I&A 8/26/08	N/A	Executed 9/23/08	\$850,000	
144S1	FA	Expansion Joint Fabrication	I&A 2/03/08	Approved 2/5/09	Executed 4/06/09	\$2,900,000	\$859,972
149	FA	Bearing Fabrication	I&A 11/03/08	Approved 11/10/08	Executed 11/25/08	\$1,600,000	\$1,151,118
154	LS	East Pile Deduct at BW6, East Pile	N/A	N/A	Executed 9/04/08	(\$400)	(\$400)
154S1	LS	Pile Anomaly Deduction at A6W & B52A	N/A	Approved 11/13/08	Executed 11/25/08	(\$2,183)	(\$2,183)
160	FA	Existing Truss Retrofit Fabrication	I&A 4/20/09	N/A	Executed 4/08/09	\$350,000	\$0
164	LS	ETI Steel Erection Crane Runway Trestle	I&A 11/20/08	ATP 11/14/08 Approved 12/23/08	Executed 12/6/09	\$2,700,000	\$2,700,000
169	LS	Skid Beam Jobsite Handling and Local Transportation Costs	I&A 1/02/09	Approved 12/23/08	Executed 2/25/09	\$1,095,020	\$1,095,020
172	LS	Lead Paint Abatement and Access at YB-3	I&A 12/18/08	N/A	Executed 2/4/09	\$210,450	\$210,450
<b>Current Status for East Tie-In</b>						<b>\$109,069,211</b>	<b>\$36,571,371</b>

**Budget Status**

The Contractor's bid price to construct the Contractor's design for the East Tie-In was \$6.0M with an additional \$1.46M to demolish the remaining portion of the ETI YB-4 span. The Department's December 14, 2006 Strategy Memorandum estimated an additional cost of \$34.0M to construct the Department's ETI roll out/roll in design concept. At the time, this estimate was based on minimal design information available. The January 2008 revised additional cost estimate is \$72.5M, with the current projection at \$109.1M. This revision is based on complete Bent 52A and skid bent foundation design plans and 65% skid bent, skid beam, and truss design plans. Executed CCOs to date are \$87M.



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The material procurement and fabrication cost increases (CCOs 112, 116, 140, & 166) are attributed to an increase in steel weight from the 65% to 100% designed plans, along with a market fluctuation in steel price, as well as additional costs to expedite the Skid Bent/Beam and Steel Truss fabrication work.

**Yerba Buena Island Transition Structures  
Advance Foundations**

**4**

Progress of Work

The YBITS foundation and column locations being advanced are W3R/L, W4R/L, W5R/L, W6R/L, W7R/L, W7 Ramp and the temporary E.B. onramp abutment.

- W3 3L – substantially completed  
3R – column (2nd lift of 2) in progress
- W4 4L – substantially completed  
4R – column (2nd lift of 3) complete
- W5 5L – 75 of 140 piles driven  
5R – work not started
- W6 6L – substantially completed  
6R North – column (2nd lift of 3) complete  
6R South – all piles driven
- W7 construction of the temporary soil nail wall and soldier pile shoring complete  
7L North – excavation complete  
7L South – column (1<sup>st</sup> lift) in progress  
7R – excavation complete  
Ramp – column (1<sup>st</sup> lift) in progress
- EB On-ramp abutment – temporary shoring piles and permanent CIDH piles have been installed

Status of Contract Change Orders: YBI Transition Structures Advance Foundations

CCO	Method of Payment	Description	HQ Status	TBPOC Status	CCO Status	Current Estimate/ Actual Cost	Change from March 08 Approved Budget
64	FA	YBITS W3L Site Prep and Grading and Construct Access Road	N/A	N/A	Executed 1/8/07	\$150,000	N/A
64S1	LS/FA	YBITS W3L Foundation and Column to Splice Zone, Integrated Shop Drawings for W3L, Concrete Washouts, 50% of Flagging, and Traffic Controls	I&A 3/13/07	Approved 2/15/07	Executed 4/4/07	\$5,835,000	N/A
65	FA	Demo Exist Bridge Adv. Planning	N/A	Approved 4/14/08	Executed 4/18/08	\$175,000	\$0
<b>65S1</b>		<b>Demolish Exist Bridge (Bent 48 to YB-4)</b>		<b>TBD</b>	<b>In Progress</b>	<b>\$9,227,660</b>	<b>\$1,602,660</b>
70	FA	Integrated Shop Drawings for Remaining YBITS Advance Locations (W3R, W4L/R, W5L/R, W6L/R, W7L/R, and W7 Ramp)	I&A 4/04/07	N/A	Executed 5/1/07	\$500,000	N/A
70S1	FA	YBITS Advance – ISD 3R, 4R/L, 5R/L, 6R/L, 7R/L & ramp	I&A 1/17/08	N/A	Executed 1/30/08	\$450,000	N/A
73	LS	YBITS W3R, W4R, W5R/L, W6R/L, and W7 Ramp Foundations and Columns	I&A 10/24/07	Approved 10/30/07	Executed 11/19/07	\$62,958,990	N/A
<b>73S1</b>		<b>Duct Bank Revisions</b>		<b>N/A</b>	<b>In Progress</b>	<b>\$200,000</b>	<b>\$200,000</b>
75	LS	YBITS W7R/L Foundations and Columns	I&A 4/2/08	Approved 4/3/08	Executed 4/14/08	\$13,125,000	<b>(\$3,682,884)</b>
<b>75S1</b>		<b>Bent W7 Structure Backfill</b>		<b>TBD</b>	<b>In Progress</b>	<b>\$1,750,000</b>	
77	LS	YBITS W4L Foundations and Columns	I&A 6/13/07	Approved 7/27/07	Executed 7/20/07	\$7,125,000	N/A
78	FA	Relocation of Sewer Force Main	N/A	N/A	Executed 7/17/07	\$125,057	N/A
<b>94</b>	<b>LS</b>	<b>YBITS Temp. EB Onramp Abutment Piles and Shoring</b>		<b>TBD</b>	<b>In Progress</b>	<b>\$400,000</b>	<b>(\$1,819,850)</b>

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118	FA	Vibration & Elev. Monitoring at W5L	N/A	N/A	Executed 2/20/08	\$50,000	\$50,000
118S1	FA/LS/ID	Nimitz House vibration monitoring	N/A	N/A	Executed 8/05/08	\$50,050	\$50,050
120	LS/Credit	CIDH Pile Mitigation Deduct	N/A	N/A	Executed 3/17/08	(\$400)	(\$400)
124	FA/LS	Seismic Monitoring & Column Grounding		N/A	Executed 11/25/08	\$353,975	\$353,975
126	FA	YBITS Excavation / Hazmat Disposal	I&A 4/7/08	Approved 4/3/08	Executed 4/17/08	\$500,000	\$400,000
147	LS	Add Cost W4R Foundation Construction	N/A	N/A	Executed 7/21/08	\$25,024	\$25,024
155	FA	Excess Soil Offhaul	I&A 8/13/08	N/A	Executed 9/03/08	\$500,000	\$500,000
<b>159</b>	<b>LS</b>	<b>Redesign Bent W7 Soil Nail Wall</b>	<b>I&amp;A 11/10/08</b>	<b>N/A</b>	<b>In Progress</b>	<b>\$916,280</b>	<b>\$916,280</b>
165	LS	W7 Soil Nail Wall Delay Costs	I&A 4/20/09	N/A	Executed 4/08/09	\$152,208	\$152,208
<b>Current Status for YBI Transition Structures Advance Foundations</b>						<b>\$104,568,844</b>	<b>(\$1,252,937)</b>

Budget Status

The Department's December 25, 2006 Strategy Memorandum estimated the cost to construct Bents W3R/L, W4R/L, W5R/L, W6R/L, W7R/L, and W7 Ramp to be \$107M. In addition, the temporary E.B. onramp abutment was added at a later date with no estimate revision. The Departments December 14, 2006 Strategy Memorandum estimated the additional demolition costs for the existing bridge (Bent 48 through YB-4) to be \$3.5M. Removal of the existing bridge is included in the current contract; however, the Department anticipates additional costs resulting from impacts of the YBITS Advance work and associated costs due to escalation. The combined estimate for both was \$110.5M. The January 2008 revised additional cost estimate is \$105.8M with a current projection of \$104.6M. Total CCOs executed to date are \$92.1M.

**Administrative Issues General CCOs**

**5**

Progress of Work

Administrative issues that remain on the SSD contract are related to setting project milestones and determining time related overhead resulting from the contract time extensions, escalation costs, the increased scope of work, and other necessary changes to the contract. Additionally, costs for implementing COZEPP for the East and West Tie-Ins need to be accounted for.

The following list of target milestones was previously provided to the Contractor to incorporate into the project schedule. This information will be revised as more detailed schedule information is developed.

	Date	Status	Notes
W3L (foundation and column up to splice zone)	March 15th, 2007	Complete	Finished 3/15/07
West Tie-In Phase 1 Viaduct Demo/Roll-In Complete	September 4th, 2007	Complete	Finished 9/04/07
Access to W3R Available to CCM	January 2nd, 2008	Partial access provided	Coordinating access with SAS
Upper East Tie-In Area Available to CCM (Revised October 2008)	December 2009	Partial access provided	Coordinating access with SAS
East Tie-In Roll-Out/Roll-In Complete (Revised October 2008)	September 7th, 2009		
Project Completion (Revised October 2008)	April 30th, 2010		

The Department has extended TRO compensation at the original contract rate through September 1, 2009. The Contractor has completed a TRO audit. The Department is reviewing this information so that an appropriate TRO adjustment can be negotiated.

The Department continues to pursue a resolution to the remaining NOPC issues. Of the 18 NOPC issues, only three remain outstanding. Of the three it is anticipated that Viaduct CCO #128 will resolve NOPC #6, resolution of the existing structure demolition costs will resolve NOPC #15, and resolution of the TRO costs will resolve NOPC #18.

**South-South Detour, Contract No. 04-0120R4**  
**Contract Change Order Implementation Strategy**  
**May 7, 2009**

**DRAFT**

Status of Contract Change Orders: Administrative Issues

CCO	Method of Payment	Description	HQ Status	TBPOC Status	CCO Status	Current Estimate/ Actual Cost	Change from March 08 Approved Budget
1 S2	FA	Flagging & Traffic Control	N/A	N/A	Executed 12/5/07	\$200,000	N/A
1S3	FA	Flagging & Traffic Control	N/A	N/A	Executed 7/2/08	\$300,000	\$300,000
13S1	FA	PMIV Additional Funds (Resolved NOPC 7)	I&A 3/10/08	N/A	Executed 3/17/08	\$300,000	\$300,000
39S1	FA	Additional Funds for Shuttle Service to USCG			Executed 3/30/2009	\$500,000	\$500,000
45 S1	LS	Additional SWPPP	I&A 12/14/07	N/A	Executed 1/31/08	\$350,000	N/A
51	LS	NOPC 12 & 13 Resolution	N/A	N/A	Executed 8/17/06	\$25,234	N/A
52	0	Elimination of Contractor's Design of Tie-Ins	I&A 1/19/07	N/A	Executed 3/2/07	\$0	N/A
53	FA	Handling and Storage of Material	I&A 11/06/06	N/A	Executed 12/8/06	\$240,000	N/A
56	LS	Contractor's Design additional cost... Resolved NOPCs 2,3,4,8,9,10,11,14, and 16	I&A 2/20/08	Approved 3/5/08	Executed 3/17/08	\$6,837,310	(\$162,690)
57	LS	Demolition of Building 206	N/A	N/A	Executed 10/18/06	\$22,378	N/A
57S1	LS	Remove and Clear Building 254	N/A	N/A	Executed 6/4/07	\$10,572	N/A
66S1	FA	Video/Photo Documentation Services Supplemental Funds	N/A	N/A	Executed 4/14/08	\$200,000	\$200,000
86	LS	Additional Suspension Costs	N/A	N/A	Executed 5/19/08	\$42,764	(\$57,236)
91	LS	Contract Days Extension/TRO Compensation to November 08	RPP 8/28/07	TBD	Executed 10/31/07	\$1,818,948	N/A
91 S1	LS	Base Contract TRO Extension to September 1, 2009	I&A 10/25/07	Approved 10/30/07	Executed 11/16/07	\$8,463,159	\$0
<b>91 S2</b>	<b>LS</b>	<b>Global TRO adjustment and Base Contract TRO extension to December 31, 2009</b>		<b>TBD</b>	<b>In Progress</b>	<b>\$10,500,000</b>	<b>(\$18,100,000)</b>
96	FA	SWPPP Steep Slope Stabilization Measures	N/A	N/A	Executed 1/4/08	\$190,000	\$0
96S1	FA	Add Funds Shotcrete Slope at Bent 48	N/A	N/A	Executed 7/2/08	\$40,000	\$40,000
109	FA	MEP Coordination	N/A	N/A	Executed 1/30/08	\$100,000	\$0
110	FA	Geotech. Exploration Pads and Support	N/A	N/A	Executed 2/20/08	\$150,000	\$50,000
119	FA/LS/ID/UP	Project Wide SWPPP	I&A 4/07/08	N/A	Executed 4/17/08	\$638,939	\$638,939
123	FA	Treasure Island Yard Lot Rental	I&A 4/16/08	N/A	Executed 4/17/08	\$600,000	\$600,000
125	FA	Project Access Paving		N/A	Executed 4/04/08	\$150,000	\$150,000
125S1	FA	Additional Funds, Project Access Paving	I&A 6/12/08	N/A	Executed 6/25/08	\$35,000	\$35,000
130	LS	Project Retention	I&A 4/07/08	N/A	Executed 4/14/08	\$136,510	\$136,510
<b>131</b>	<b>FA</b>	<b>Delete Permanent Erosion Control Items</b>		<b>N/A</b>	<b>In Progress</b>	<b>(\$74,502)</b>	<b>(\$74,502)</b>
132	LS	Storm Damage Slope Repair (Resolved NOPC 17)		N/A	Executed 5/23/08	\$23,870	\$23,870
142	FA	Macalla Road Sinkhole Repair		N/A	Executed 7/18/08	\$150,000	\$150,000
146	FA	Macalla Road Tree Trimming	N/A	N/A	Executed 7/21/08	\$50,000	\$100,000
146S1	FA	Add Funds Macalla Road Tree Trimming	N/A	N/A	Executed 11/25/08	\$50,000	
151		Public Safety Spec Change (Suspended Load)			Executed 9/23/08	\$0	\$0



**South-South Detour, Contract No. 04-0120R4**  
**Contract Change Order Implementation Strategy**  
**May 7, 2009**

**DRAFT**

157		USCG Access Mitigation Stairway Design to Quarters Above		N/A	Executed 1/28/09	\$150,000	\$150,000
176	FA	Construction Staking	N/A	N/A	Executed 4/08/09	\$100,000	\$100,000
		<b>Non CCO Charges...COZEEP, lead survey, respirator training</b>			<b>In Progress</b>	<b>\$1,323,000</b>	<b>\$0</b>
<b>Current Status for Administrative and General CCOs</b>						<b>\$33,623,182</b>	<b>(\$14,920,109)</b>

Budget Status

As of January 2008 the revised additional cost estimate for Time Related Overhead, escalation issues, and job wide changes is \$48.6M with the largest estimated cost being attributed to a global TRO adjustment. As Contract Change Orders for these items are negotiated, this estimate will be updated. Costs related to settlement of NOPC issues not captured here will be paid out of the contract contingency.

Additionally, the original contract allotment provided \$1.3M for COZEEP. Subsequently, there were \$23,000 in other charges for a lead survey and respirator training both related to the WTI Phase 1 demolition work, providing for total non-CCO related charges of \$1.323M to the contract. These costs are shown here to capture costs to the project. It is also important to note that with two full bridge closures planned additional COZEEP funds may be required.

Total CCOs executed to date are \$21.9M.

## *Memorandum*

**TO:** Toll Bridge Program Oversight Committee (TBPOC)      **DATE:** April 29, 2009

**FR:** Tony Anziano, Toll Bridge Program Manager, Caltrans

**RE:** Agenda No. - 4c1  
Item- San Francisco-Oakland Bay Bridge Updates  
Yerba Buena Island Transition Structure (YBITS) No.1 Bid Opening  
Addendum

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**Recommendation:**  
**APPROVAL**

**Cost:**  
No cost impact

**Schedule Impacts:**

Delays bid opening by 5 months on YBITS No.1 contract. Construction work on YBITS No.1 is estimated to take 17 months and will finish 3 months before Phase 1 milestone on the SAS approved schedule.

**Discussion:**

Revise the bid opening date for the YBITS No.1 contract from July 14, 2009 to December 15, 2009. This allows completion of the roll-out / roll-in work on Labor Day 2009 and completion of the integrated shop drawings (ISD) and their addition to the contract prior to bid opening. This revised bid opening date allows the YBITS contractor to work on submittals for 5 and ½ months before the work area is available. As of this month, more is known about the CC Myers schedule and the overlap into the YBITS No.1 work area. Three months of float is preserved by assuming responsibility for integrating shop drawings as part of the bid package.

**Attachment(s):**

1. Meeting Notes April 21, 2009
2. YBITS 1 Bid Opening Options



## Meeting Notes

Project	YBITS 1	Project Number	04-0120S4
Meeting Location	Pier 7	Meeting Date and/or Time	April 21, 2009
Meeting Subject	Delay Bid Opening		

<b>Attendees:</b>	Ken Terpstra	Brian Maroney
	Ade Akinsanya	
	Mike Whiteside	Jason Weinstein
	Limor Rozmarin	Peter Lee
	Bob Zandipour	Rich Foley
	Derek Pool	Bill Casey
	Dina Noel	Mike Forner
	Steve Maller	Mike Stone
	Jon Tapping	

Item No.:	Description	Responsibility	Due Date
<b>Subject: Review of schedule options</b>			
1	Three schedule options were discussed based on CCM's schedule for completion presented on April 17. <ol style="list-style-type: none"> <li>CCM schedule is based on Labor Day RORI,</li> <li>demolition completion June 2010</li> <li>W5 completion in September 2009</li> <li>contract completion in November 2010.</li> </ol>		
	1) Current YBITS 1 as advertised schedule (Top schedule) <ol style="list-style-type: none"> <li>This schedule includes YBITS 1 bid opening on July 14, 2009 and start of field work on May 1, 2010.</li> <li>DP 1 is bid A+B with a maximum of 900 days. Twenty-three months are available for construction. The CST believes that construction can be completed in 17 months on an aggressive schedule.</li> <li>Schedule supports the SAS contract milestones</li> <li>Changes resulting from the current Department ISD effort (anticipated to be completed and plan sheet changes made by September 2009) will have to be incorporated into the contract by CCO.</li> <li>SF Ramp CCO for utility changes at Macalla Rd. and foundations will be issued at the same time construction is scheduled to begin.</li> <li>There is a 7 month overlap when both contractors would be working in the field.</li> <li>May be able to allow YBITS 1 contractor earlier construction access pending CCM progress.</li> </ol>		
	2) Delay YBITS 1 bid opening and shorten time available for construction (middle schedule) <ol style="list-style-type: none"> <li>Bid opening is delayed until December 2009</li> </ol>		



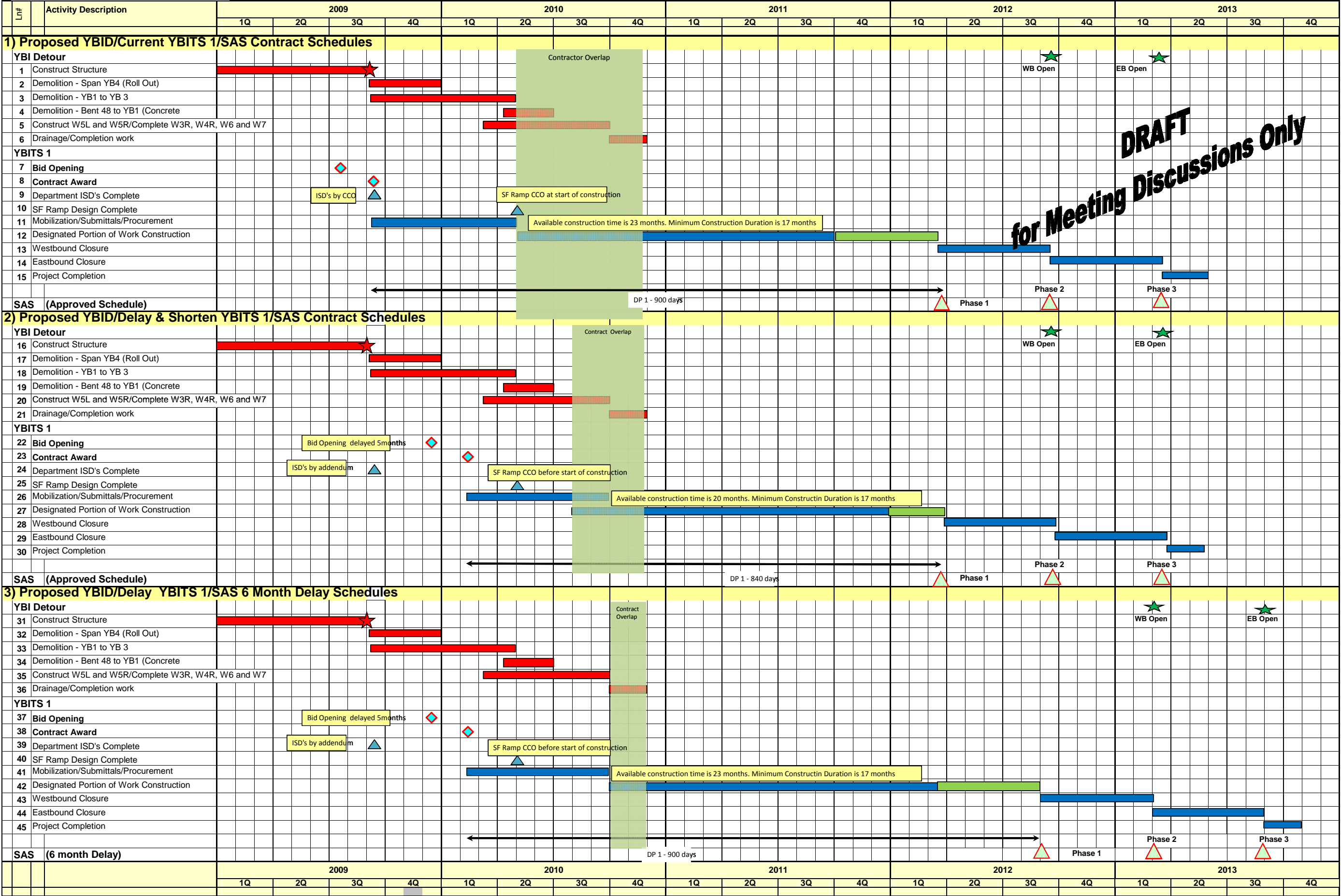


## Meeting Notes

Project	YBITS 1	Project Number	04-0120S4
Meeting Location	Pier 7	Meeting Date and/or Time	April 21, 2009
Meeting Subject	Delay Bid Opening		

	<ol style="list-style-type: none"> <li>2. Start of field work is delayed until October 2010. Earlier access may be available pending CCM progress.</li> <li>3. DP 1 duration is reduced to 780 days. Eighteen months available for construction.</li> <li>4. Changes from Department ISDs are issued by addendum before bid opening.</li> <li>5. SF Ramp CCO is issued prior to the start of field work.</li> <li>8. Schedule supports the SAS contract milestones</li> <li>6. Allows a two month overlap in field work after W5 is completed.</li> </ol>		
	<ol style="list-style-type: none"> <li>3) Delay YBITS 1 bid opening and no change to time available for construction (Bottom Schedule)               <ol style="list-style-type: none"> <li>1. Bid opening is delayed until December 2009</li> <li>2. Start of field work is delayed until October 2010. Earlier access may be available pending CCM progress.</li> <li>3. DP 1 duration is not reduced. Twenty-three months available for construction.</li> <li>4. Changes from Department ISDs are issued by addendum before bid opening.</li> <li>5. SF Ramp CCO is issued prior to the start of field work.</li> <li>9. Schedule assumes a six month delay to the SAS contract milestones</li> <li>6. Allows a two month overlap in field work after W5 is completed.</li> </ol> </li> </ol>		
2	<p>A+B bidding It was stated that CCM believes that A+B bidding is not a good fit for this contract.</p> <p>The work is controlled at the front end by completion of the SSD contract.</p> <p>Completion of the eastern frames is controlled by the SAS contractor completing cable erection and Phase 1 to make the area at Hinge K available for the YBITS 1 contractor to complete.</p>		
3	<p>Recommendations</p> <ol style="list-style-type: none"> <li>1. Delay Bid Opening to December 15, 2009.</li> <li>2. Reduce the DP 1 duration to 780 days.</li> <li>3. Issue the last addendum October 30, 2009 with the ISD changes.</li> <li>4. Issue next addendum changing the bid opening and all other items that are currently ready to go.</li> <li>5. Remove A+B bidding.</li> </ol>		

# YBITS 1 Bid Opening Options



**DRAFT**  
for Meeting Discussions Only

## *Memorandum*

**TO:** Toll Bridge Program Oversight Committee (TBPOC)      **DATE:** April 29, 2009

**FR:** Tony Anziano, Toll Bridge Program Manager, Caltrans

**RE:** Agenda No. - 4d  
Item- San Francisco-Oakland Bay Bridge Updates  
Oakland Touchdown (OTD) No. 1 Update

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**Recommendation:**

For Information Only

**Cost:**

N/A

**Schedule Impacts:**

N/A

**Discussion:**

A verbal update on the status of the Oakland Touchdown (OTD) No. 1 contract will be provided at the meeting.

**Attachment(s):**

N/A



**TO:** Toll Bridge Program Oversight Committee      **DATE:** April 29, 2009  
(TBPOC)

**FR:** Andrew Fremier, Deputy Executive Director, BATA

**RE:** Agenda No. - 5a  
Other Business  
Item- Dumbarton / Antioch Bridge Update

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**Recommendation:**

For Information Only

**Cost:**

N/A

**Schedule Impacts:**

N/A

**Discussion:**

At the TBPOC meeting on November 6, 2008, a status update was given on the Dumbarton and Antioch bridge seismic retrofit projects. At this meeting the cost estimates, project schedules, procurement of prototype bearings, and introduction of these projects to the public was presented.

In December 2008, the Department and BATA staff made a joint presentation to BATA outlining the potential vulnerabilities of both structures and presented the cost estimate and rough schedule for completing these projects.

On April 8, 2009, a contract was executed between BATA and Earthquake Protection Services Inc. (EPS) to produce and test 6 prototype bearings. The information obtained from the testing will be used in the development of bearings for the construction projects at each bridge. The production and testing of these prototype bearings are scheduled to be complete in April 2010.

The Department design teams have made much progress since the November 2008 update. Below is an update on each bridge:

Antioch

- The structural plans and quantities are completed and the specifications and estimate will be complete by June 2009. The Departments' District Office Engineer will combine the structural and roadway packages and forward the PS&E to Headquarters on August 3, 2009, which is on target with the attached schedule.
- A Biological Assessment for fish was submitted to NOAA's National Marine Fisheries Service (NOAA Fisheries Service) on January 13, 2009.
- A Biological Assessment for fish, birds, and giant garter snakes, was given to US Fish and Wildlife services on January 13, 2009
- The Natural Environmental Study (NES) is still in progress and should be completed in May 2009.

Dumbarton

- The structural plans and quantities will be completed by June 2009. During July 2009 the Department's District Office Engineer will combine the structural and roadway packages and forward the PS&E to Headquarters on August 3, 2009, which is on target with the attached schedule.
- A Biological Assessment for fish and mammals was submitted to NOAA's National Marine Fisheries Service (NOAA Fisheries Service) on January 5, 2009.
- An Incidental harassment Authorization (IHA) was completed for the mammals only and submitted to NOAA's National Marine Fisheries Service (NOAA Fisheries Service) March 30, 2009.
- A Biological Assessment for fish and birds was given to US Fish and Wildlife services on January 5, 2009.
- The Natural Environmental Study (NES) was given to all regulatory agencies on March 4, 2009 for review.

There is concern on the part of project staff that the IHA for the Dumbarton project mentioned above may delay the permit issuance particularly from BCDC which could put our August 3, 2009 PS&E date in jeopardy. This concern will be elevated to NOAA Fisheries Service and BCDC decision makers such that expedited approvals can be obtained. If expedited approvals are not obtained, the project can continue to move forward by getting an exception to deliver the PS&E to Headquarters for review without final permit approval. Project staff would need to ensure that final permits are obtained by the Ready to List Date of November 20, 2009.

Progress has also been made on legislation since the November 2008 update. AB 1175 was introduced by Assembly Member Torlakson on February 27, 2009 and was amended in the Assembly on April 14, 2009. This bill provides for the addition of seismic safety improvement projects on the Antioch and Dumbarton Bridges to the TBSRP. This bill has passed the Assembly Transportation Committee and is currently in the Assembly Appropriations Committee.

**Attachment(s):**

Antioch/Dumbarton Bridge Baseline Schedule (3/09)

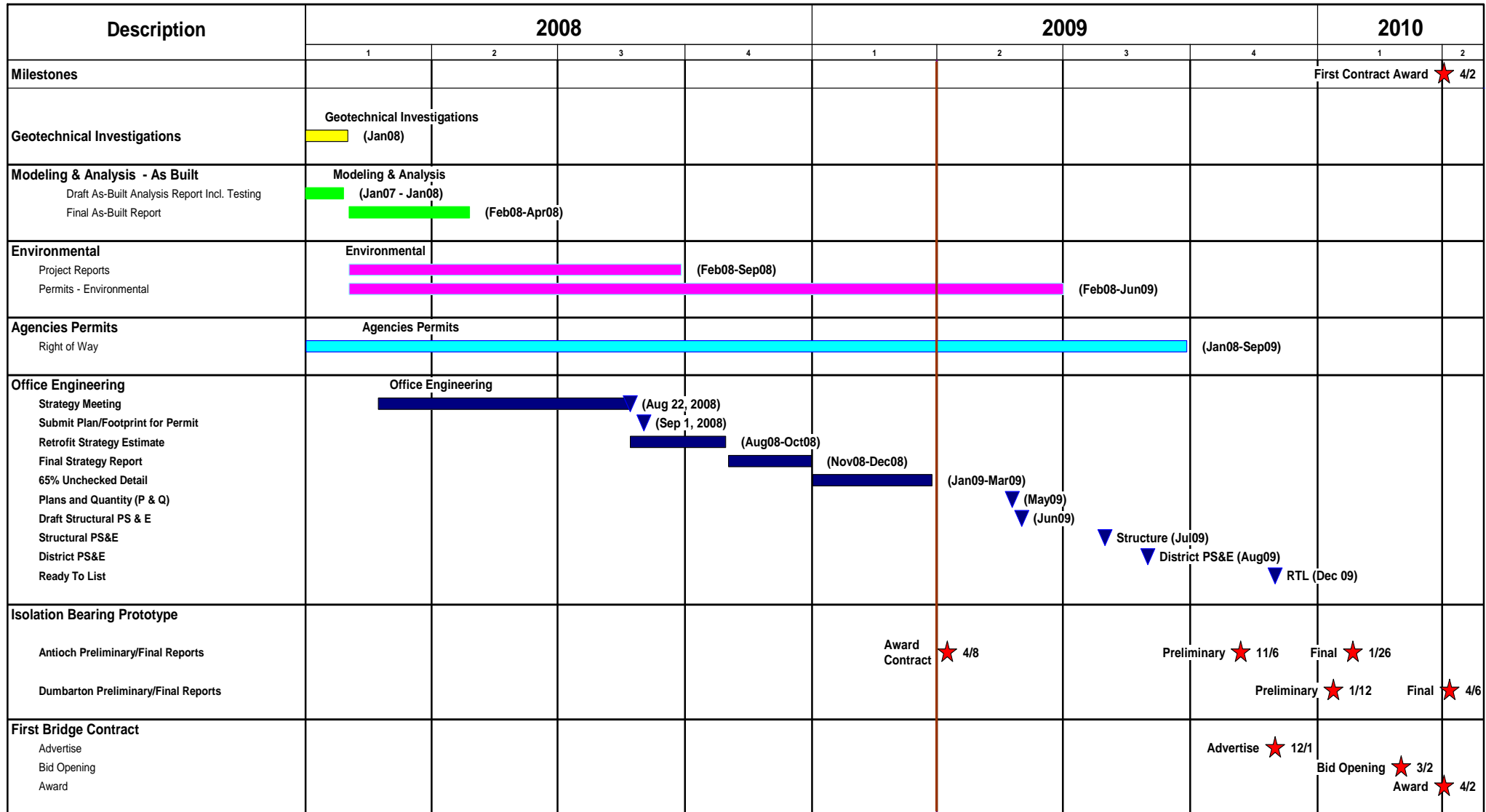


# Antioch / Dumbarton Bridge Baseline Schedule

## Seismic Retrofit Strategy

Date: 03/31/09

3/31/09



★ Milestone



Geotech



Modeling &  
Analysis



Environmental



Office  
Engineering